Serviceanweisung
Service manual

160 RC Ident-Nr. 42 558 00
200 RC Ident-Nr. 42 561 00

MULTI FUNCTION TUNER DISPLAY
MULTI FUNCTION CD DISPLAY
HIFI STEREO PLL SYNTHESIZER RECEIVER
HIFI STEREO COMPACT DISC PLAYER
NEW YORK SERIES -160RC-
HIFI STEREO DOUBLE CASSETTE DECK
TAPE A
TAPE B
INFRARED COMMANDER

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Verdrahtungsplan Queens 160
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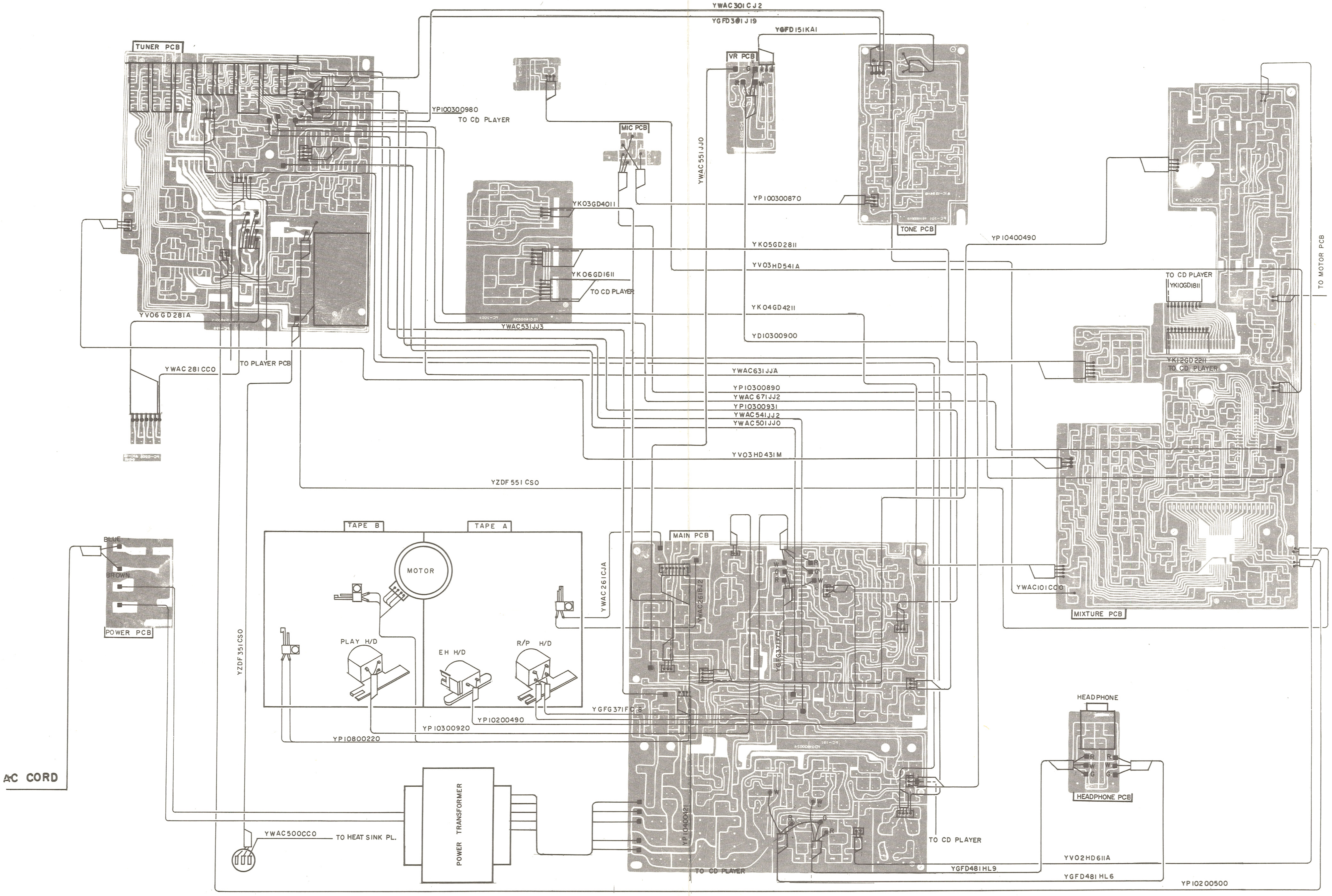
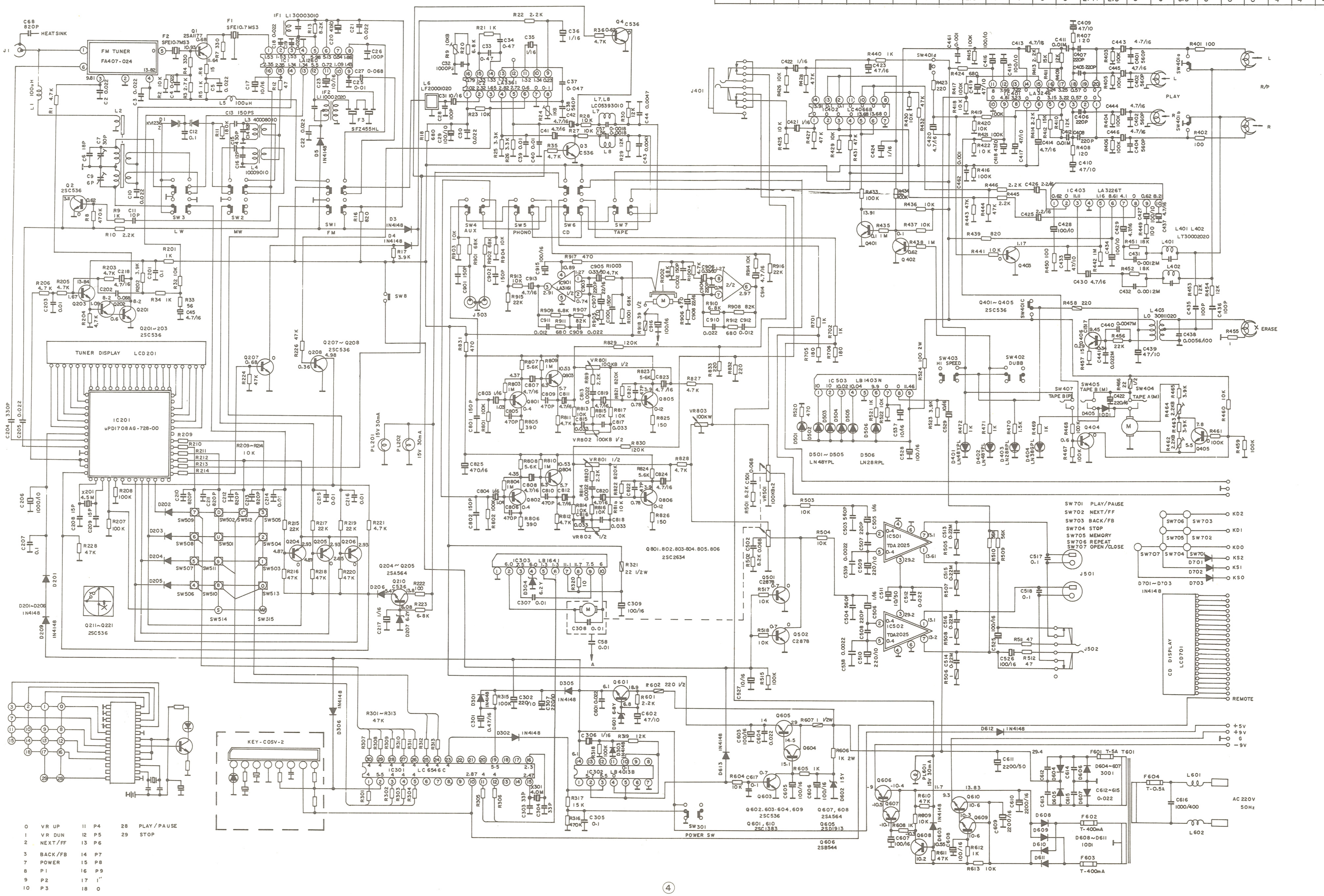

YWAC301CJ2
YGFD381J19
YGFD151KA1
TUNER PCB
VR PCB
MIC PCB
TONE PCB
YP100300980
TO CD PLAYER
YWAC551JJ0
YK03GD4011
YK06GD1611
TO CD PLAYER
YP100300870
YK05GD2811
YV03HD541A
YK04GD4211
YD10300900
YP10400490
TO CD PLAYER
YK10GD1811
TO MOTOR PCB
YK12GD2211
TO CD PLAYER
YV06GD281A
YWAC531JJ3
YWAC281CC0
TO PLAYER PCB
YWAC631JJA
YP10300890
YWAC671JJ2
YP10300931
YWAC541JJ2
YWAC501JJ0
YV03HD431M
YZDF551CS0
TAPE B
TAPE A
MOTOR
PLAY H/D
EH H/D
R/P H/D
YWAC261CJA
MAIN PCB
YWAC261BJ2
YGFG371FC
YWAC101CC0
MIXTURE PCB
BLUE
BROWN
POWER PCB
YZDF351CS0
YGFG371FC B
YP10200490
YP10300920
YP10800220
HEADPHONE
HEADPHONE PCB
AC CORD
POWER TRANSFORMER
YWAC500CC0
TO HEAT SINK PL.
YP10400421
TO CD PLAYER
TO CD PLAYER
YGFD481HL9
YV02HD611A
YGFD481HL6
YP10200500

Schaltbild Queens 160 (ohne CD-Spieler)
Circuit diagram Queens 160 (without CD player)

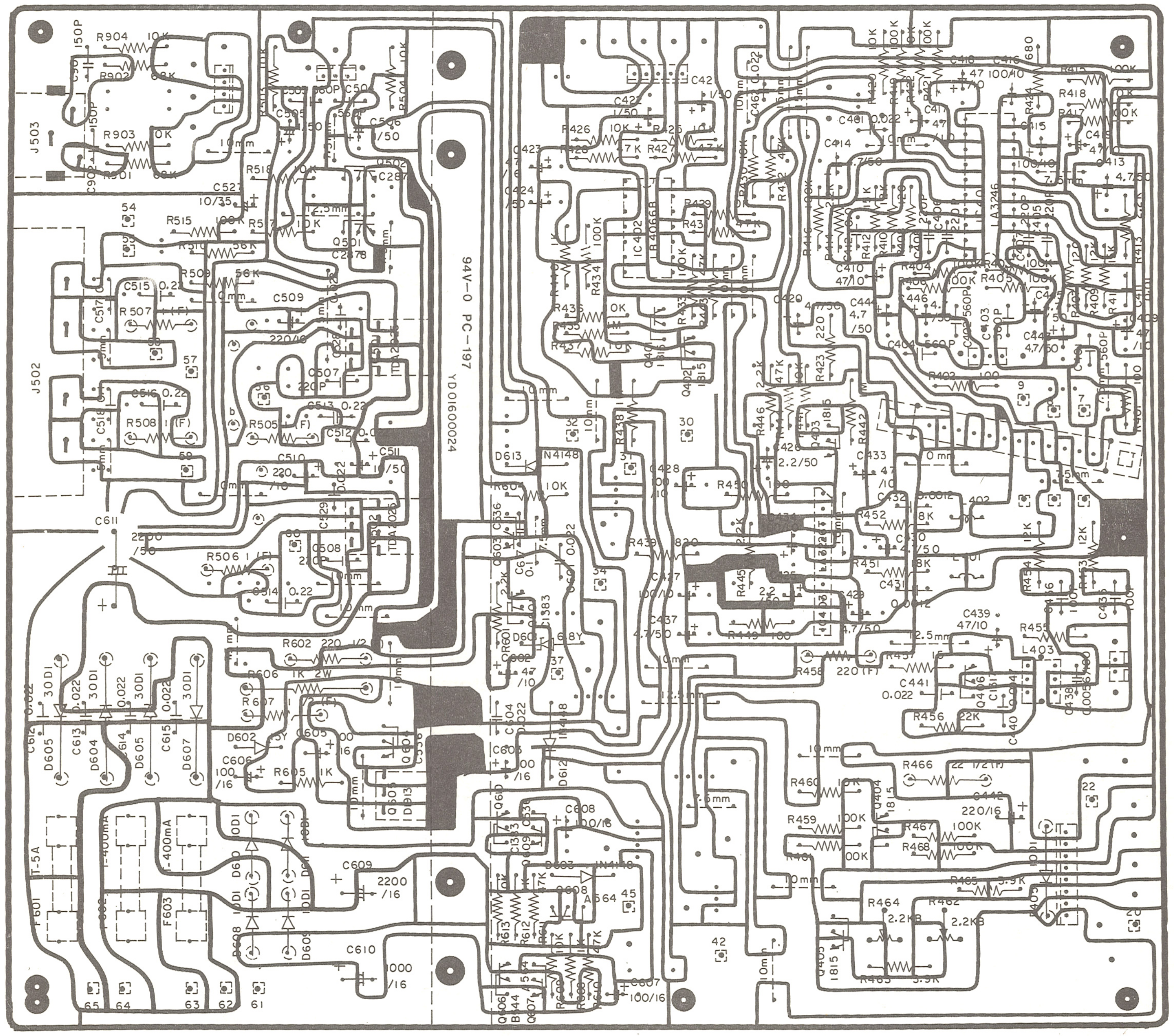
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
IC 1	1.53	1.53	1.53	0	5.98	5.13	0.54	1.86	1.43	1.09	0.72	5.5	1.34	1.34	2.35	2.35														
IC 2	7.02	2.32	1.65	2.82	2.72	0.6	0	0.1	0.23	1.34	1.32	1	1.33	1.33	1.33	0.79														
IC302	0	5.7	5.5	0	0	0	0	0	0	0.1	0	0	0	0																
IC303	0	6.0	7.5	6.0	1.3	1.3	11.1	11.7	7.5	6																				
IC401	0	0	0.57	3.22	3.15	0	0	3.23	4.81	0	8	7.99	7.22	0	0	3.24	3.25	0.57	0	0										
IC402	0	0	0	0	13.68	13.68	0	0	0	0	0	0.1	0.1	13.91																
IC403	0.62	0	11.11	0	1.16	8.61	4.1	0	0.62	8.21																				
IC501	13.61	0.4	29.2	0	0.4	0	13.1																							
IC502	13.1	0.4	29.2	0	0.4	0	13.1																							
IC503	10	10	10.02	10.04	0	9.9	0	0	11.46																					
IC901	1.27	0.74	2.91	10.89	2.97	0.74	1.27																							
IC301	4	5.5	4	4	4	0	0	0	0	2.87	4	4	0	0	2.47	2.3	0	0	5.5	0	0	0	4	4	4	4	4	4	4	4


FM TUNER
FA407-024
HEATSINK
TUNER DISPLAY LCD201
IC201
uPD1708AG-728-00
SW1 FM
SW2 MW
SW3 LW
SW4 AUX
SW5 PHONO
SW6 CD
SW7 TAPE
SW8
J503
Q201~203 2SC536
Q207~Q208 2SC536
Q204~Q205 2SA564
Q211~Q221 2SC536
D201~D206 1N4148
IC303 LB1641
IC301 LC6546C
KEY-COSV-2
IC302 LB40138
SW301 POWER SW
Q602.603.604.609 2SC536
Q601, 610 2SC1383
Q605 2SD1913
Q607, 608 2SA564
Q606 2SB544
Q801.802.803.804.805.806 2SC2634
VR801 100KB 1/2
VR802 100KB 1/2
VR803 100KW
IC503 LB1403N
D501~D505 LN48YPL
D506 LN28RPL
IC501 TDA 2025
IC502 TDA 2025
J501
J502
J401
IC402 LC4066B
IC401 LA3226T
IC403 LA3226T
L401 L402 LT30002020
L403 L011001020
Q401~Q405 2SC536
SW401a
SW401b
SW402 DUBB
SW403 HI SPEED
SW404 TAPE A(M)
SW405 TAPE B(M)
SW407 TAPE B(P)
PLAY
R/P
ERASE
SW701 PLAY/PAUSE
SW702 NEXT/FF
SW703 BACK/FB
SW704 STOP
SW705 MEMORY
SW706 REPEAT
SW707 OPEN/CLOSE
D701~D703 1N4148
CD DISPLAY LCD701
KD2
KD1
KD0
KS2
KS1
KS0
REMOTE
+5V
+9V
G
-9V
F601 T-5A
T601
D604~607 30D1
C612~615 0.022
F604 T-0.5A
L601
L602
C616 1000/400
AC 220V 50Hz
F602 T-400mA
F603 T-400mA
D608~D611 10D1
0 VR UP
1 VR DUN
2 NEXT/FF
3 BACK/FB
7 POWER
8 P1
9 P2
10 P3
11 P4
12 P5
13 P6
14 P7
15 P8
16 P9
17 1''
18 0
28 PLAY/PAUSE
29 STOP

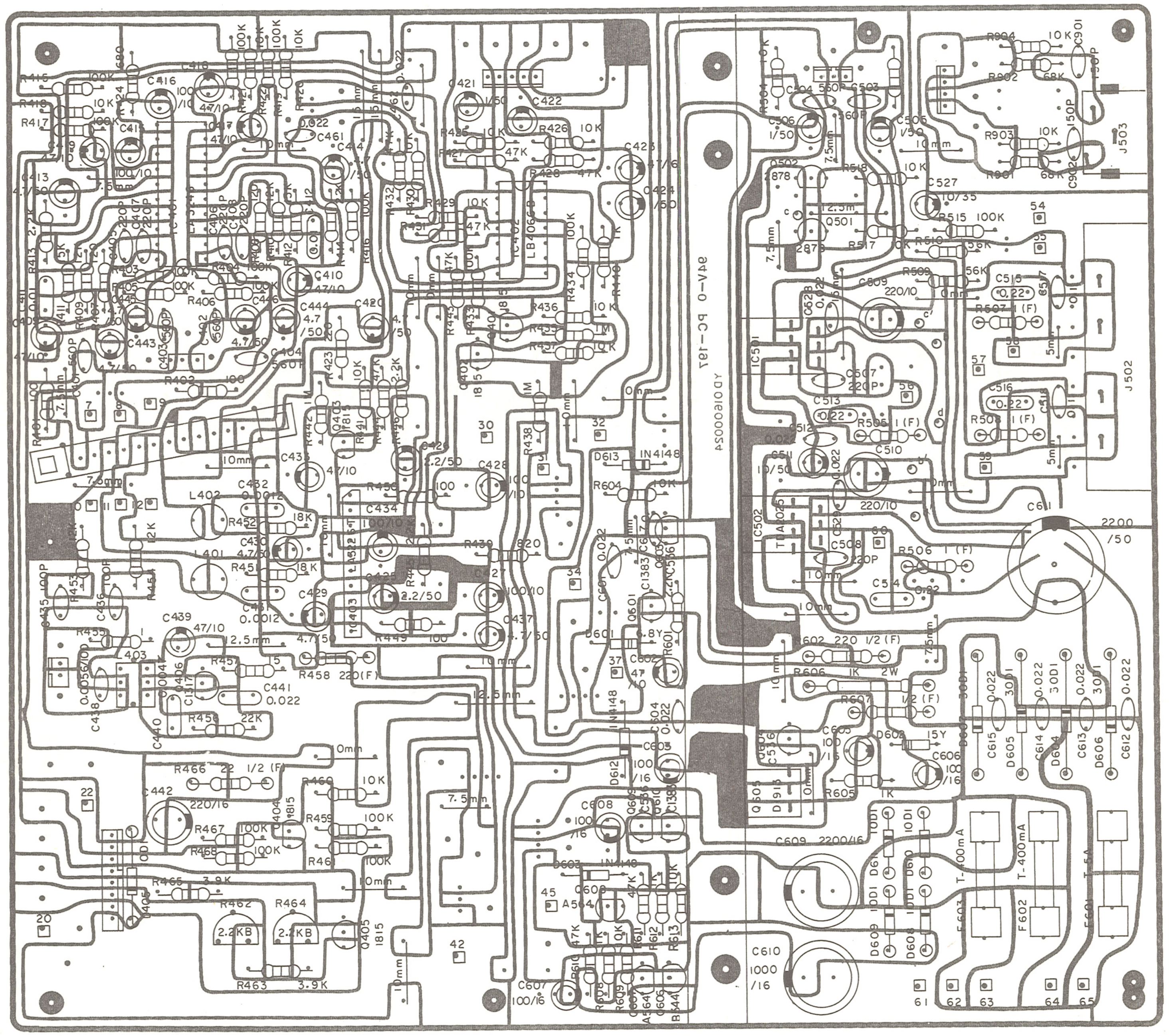
PIN NO.	E	C	B
Q 1	11.64	0.68	10.93
Q 2	0	3.11	0.62
Q 4	0	0	0.62
Q201	0	8.2	0.6
Q202	0.6	8.2	1.09
Q203	1.09	13.84	1.67
Q207	0	0	0.68
Q204	2.93	0	4.87
Q205	2.93	0	4.87
Q206	2.93	0	2.65
Q208	0	4.93	0.36
Q210	5.47	13.8	6.08
Q401	0	13.91	0.1
Q402	0	0.1	0.62
Q403	0	1.17	0
Q404	0	0	0.6
Q405	5.5	7.8	0
Q406	0.29	9.45	-0.34
Q501	0	0	0.7
Q502	0	0	0.7
Q601	6.1	18.9	6.8
Q603	0	0	6.7
Q604	14.5	29	15.1
Q605	14	29	14.5
Q606	-9	-10.4	-10.5
Q609	-10.5	-10.4	-10.1
Q610	9.3	10.6	10.3
Q801	0.4	4.37	1.03
Q802	0.4	4.35	1.04
Q803	5.7	10.53	6.3
Q804	5.7	10.53	6.3
Q805	0.12	3.9	0.78
Q806	0.12	3.9	0.78

Hauptplatine Queens 160
Main P.C.B. Queens 160

Leiterbahnseite
Bottom view

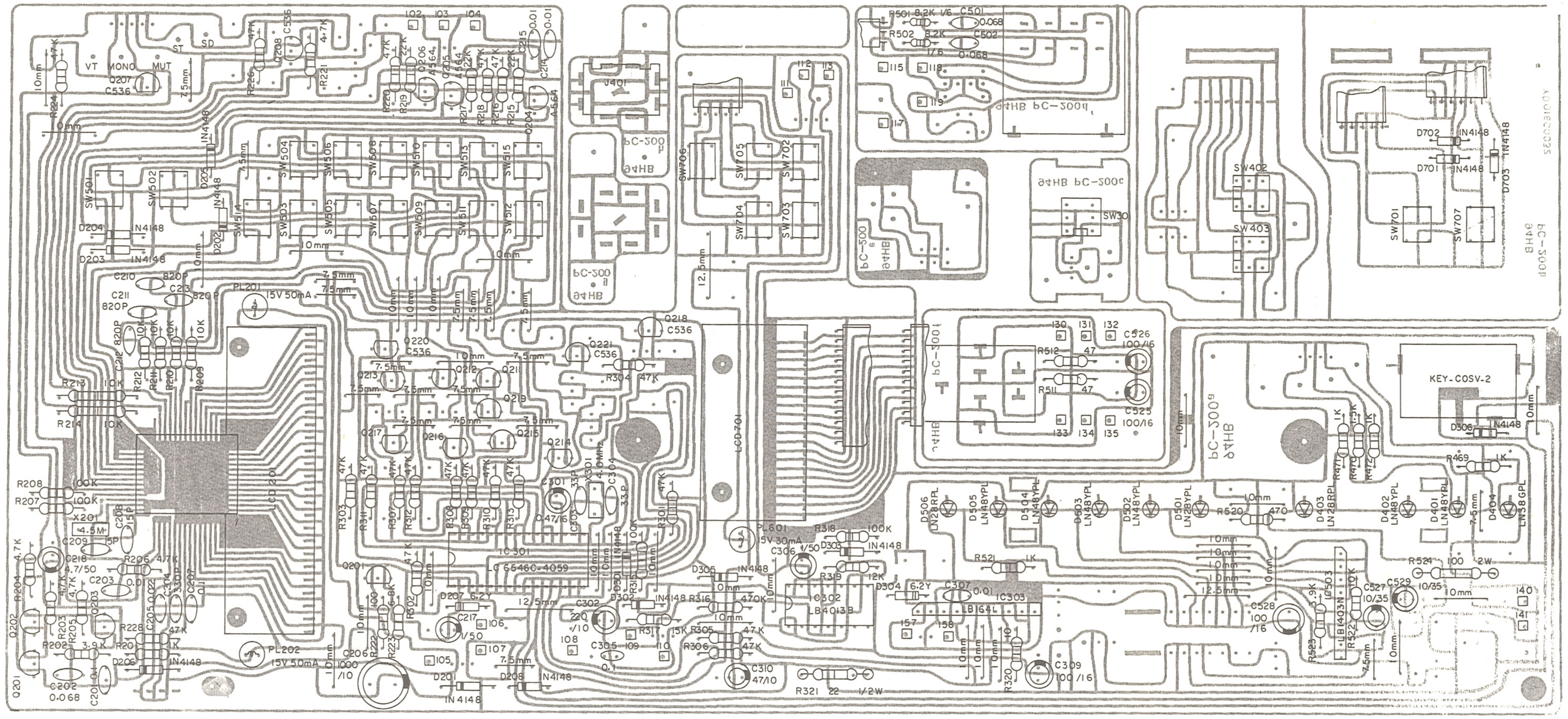

94V-0 PC-197
YD01600024

Bestückungsseite
Top view


94V-0 PC-197
YD01600024

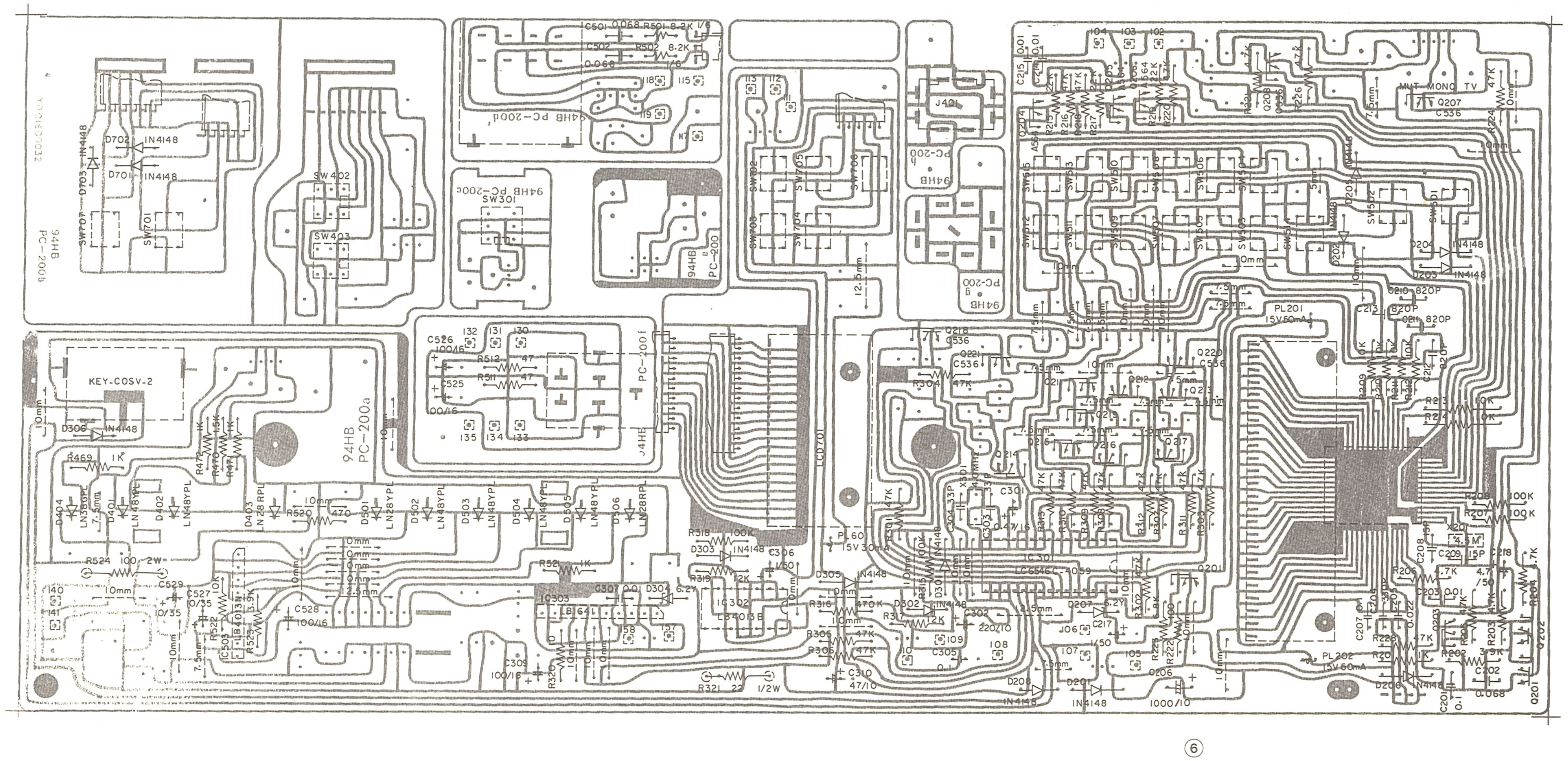
Displayplatine/Schalterplatinen CD–Tape, Queens 160
Display P.C.B./Switch P.C.B.'s CD–Tape, Queens 160

Bestückungsseite
Top view



LCD701
KEY-COSV-2
IC201
IC301
IC303
PL201
PL202
PL601

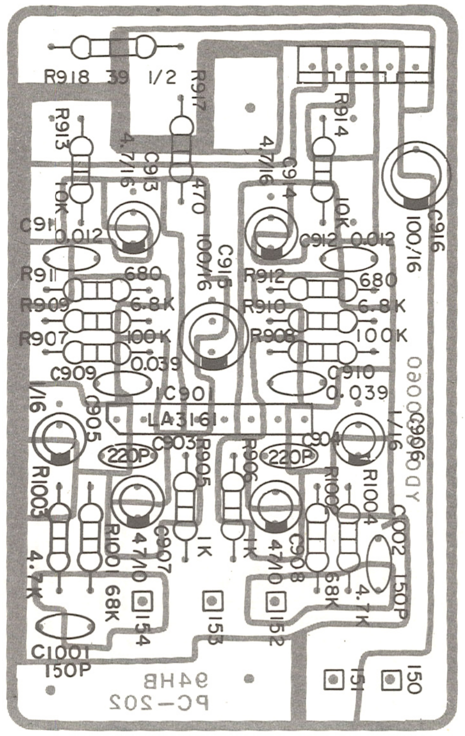
Leiterbahnseite
Bottom view



LCD701
KEY-COSV-2
94HB PC-200a
PL201
PL202
PL601

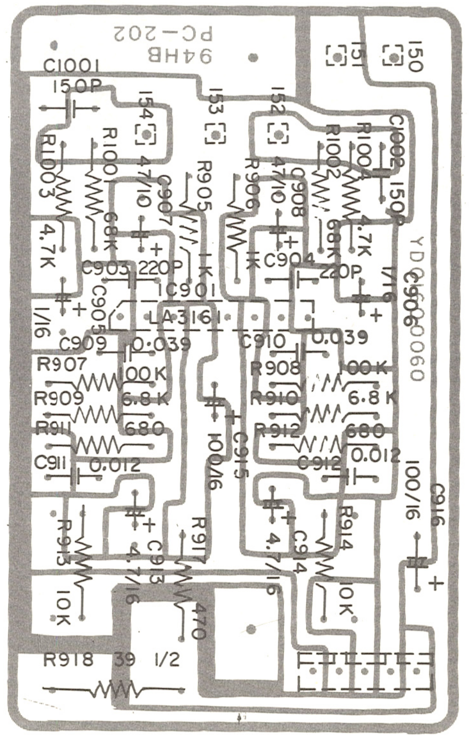
Phono-Vorverstärkerplatine
Pre-amplifier P.C.B. phono

Bestückungsseite
Top view



R918 39 1/2
LA3161
C1001 150P
94HB PC-202

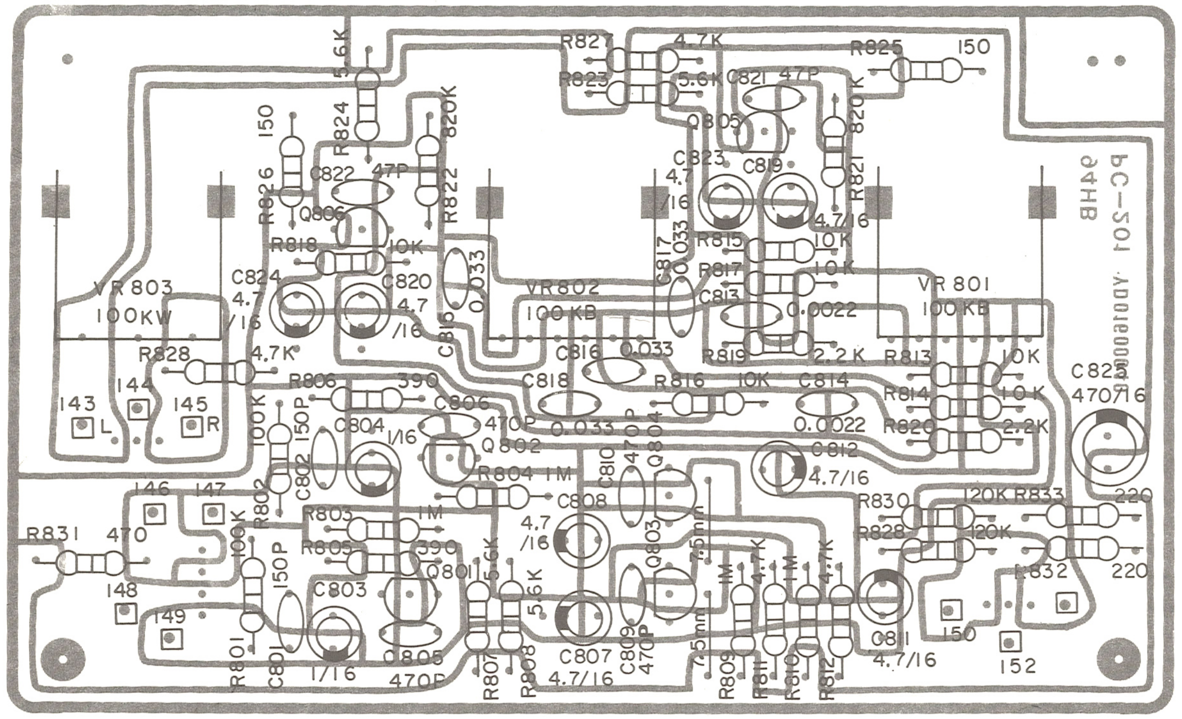
Leiterbahnseite
Bottom view



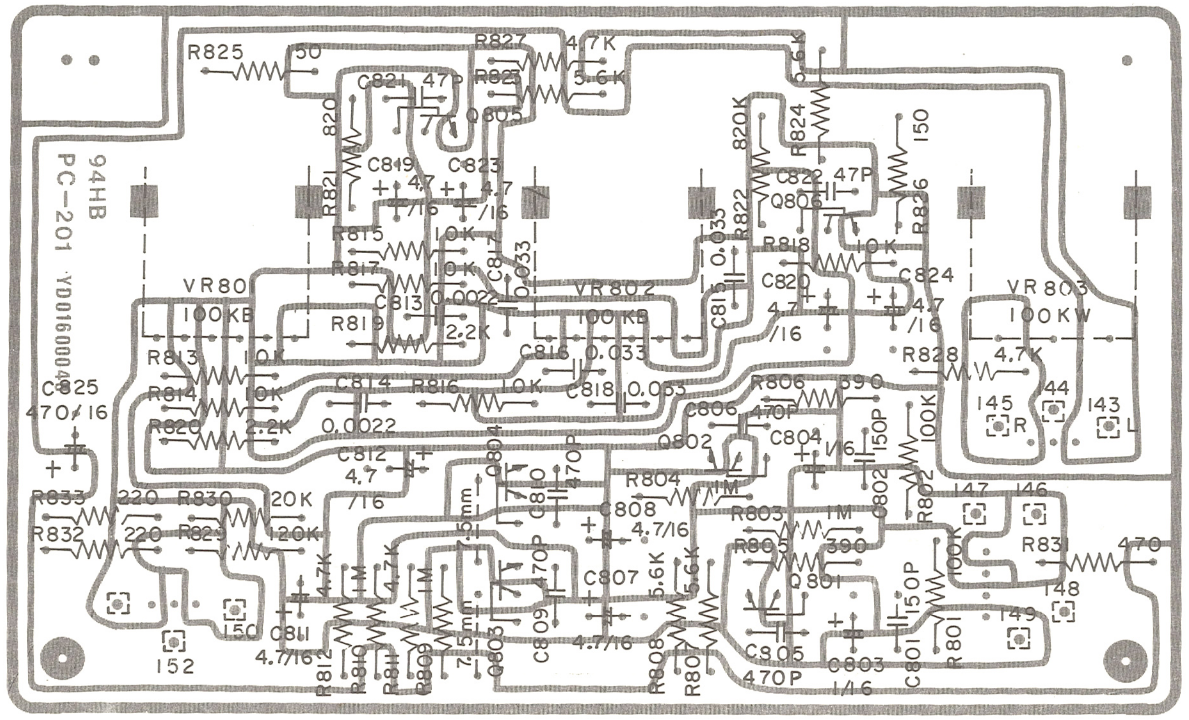
PC-202 94HB
C1001 150P
LA3161
R918 39 1/2

Klangreglerplatine Queens 160
Tone P.C.B. Queens 160

Bestückungsseite
Top view

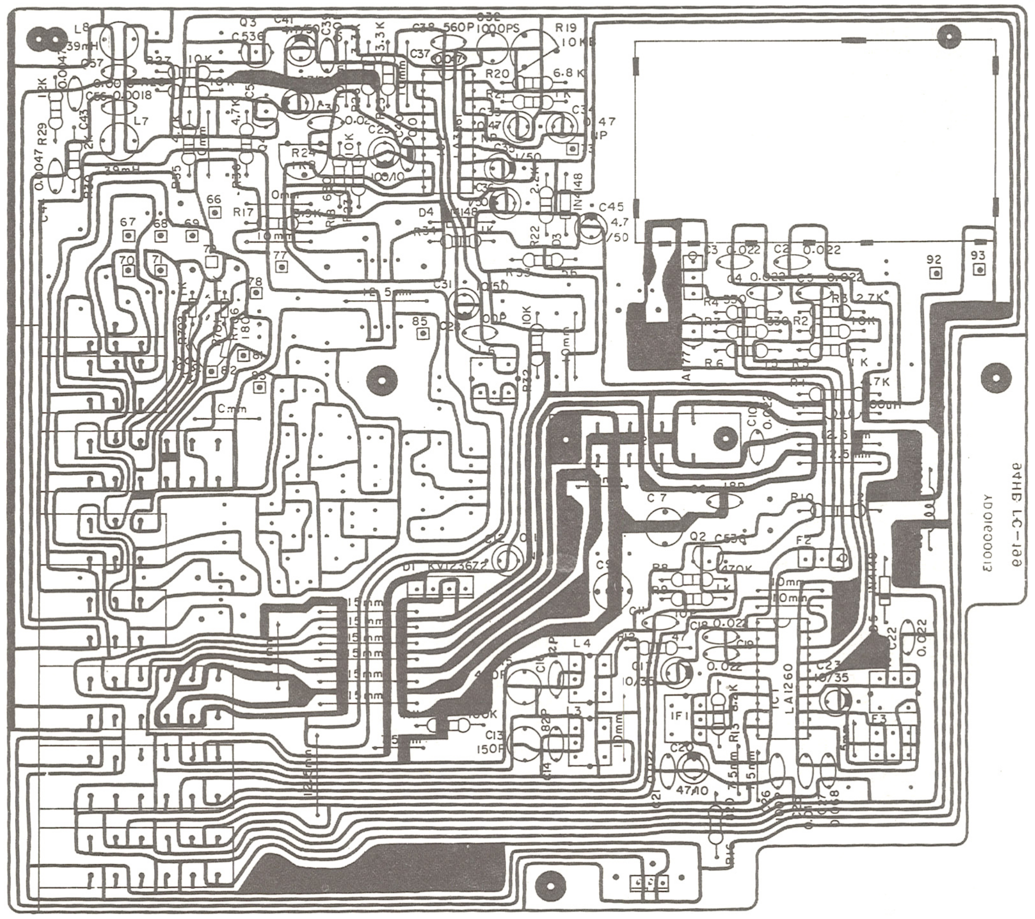

PC-201
94HB
YD016000
VR803
100KW
VR802
100KB
VR801
100KB
R825
R827
R823
R824
R826
R822
R821
R828
R831
R832
R833
R830
C825
470/16
C824
C820
C819
C823
C821
C822
C806
C804
C803
C805
C807
C808
C811
C812
C814
C816
C818
Q801
Q802
Q803
Q804
Q805
Q806
143
144
145
146
147
148
149
150
152
L
R

Leiterbahnseite
Bottom view

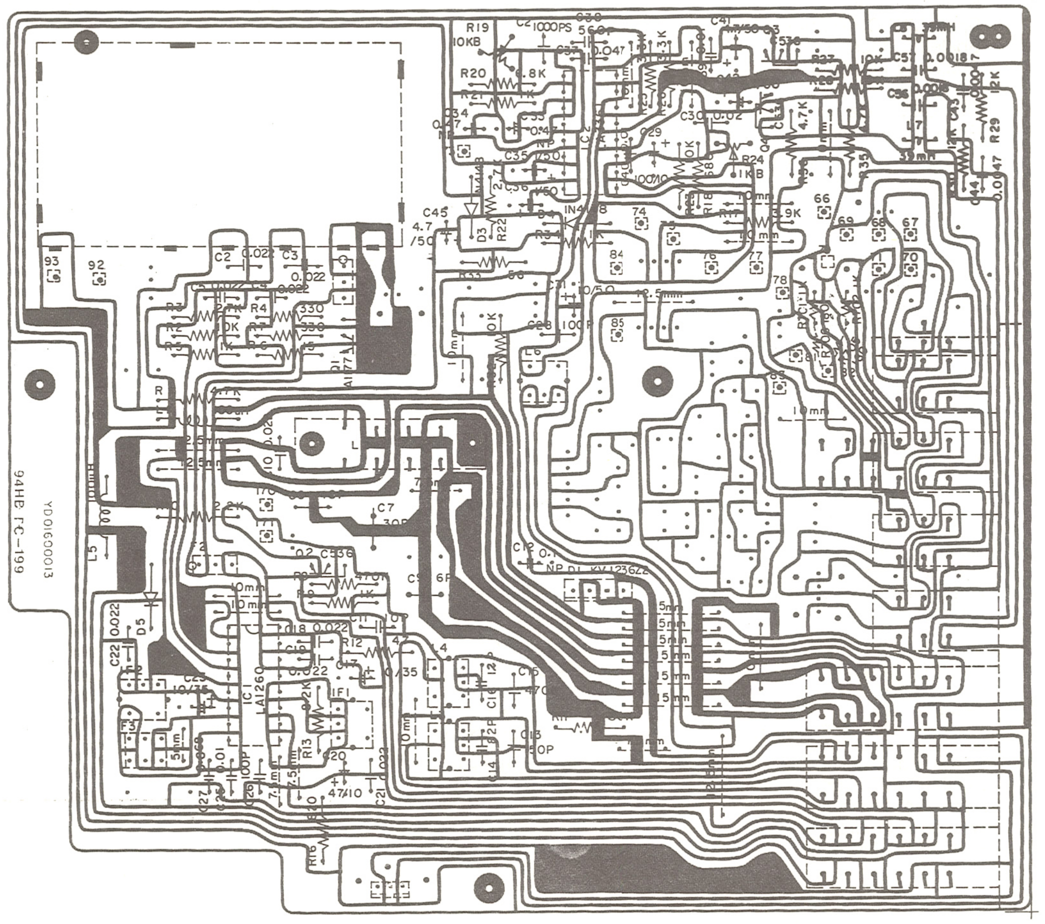

94HB
PC-201
YD016000
VR801
100KB
VR802
100KB
VR803
100KW
R825
R827
R823
R824
R826
R822
R821
R828
R831
R832
R833
R830
C825
470/16
C824
C820
C819
C823
C821
C822
C806
C804
C803
C805
C807
C808
C811
C812
C814
C816
C818
Q801
Q802
Q803
Q804
Q805
Q806
143
144
145
146
147
148
149
150
152
L
R

Tunerplatine Queens 160
Tuner P.C.B. Queens 160

Bestückungsseite
Top view


94HB LC-199
YD0160013
LA1260
L8
L7
L4
R19
R20
R29
C45
C7
Q2
Q3
92
93

Leiterbahnseite
Bottom view


94HB LC-199
YD0160013
LA1260
L5
R19
R20
R29
C45
C7
Q2
Q3
92
93

Ersatzteilliste elektrisch Queens 160 (ohne CD)
Spare parts list electrical Queens 160 (without CD Player)

Bestell-Nr./ Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price key
46 846 00	Tunerplatine	Tuner P.C.B.		F 3
48 014 00	Hauptplatine	Main P.C.B.		E 9
46 847 00	Displayplatine	Display P.C.B.		F 8
46 848 00	Klangreglerplatine	Tone P.C.B.		D 1
46 849 00	Schalterplatine CD-Tape	Control P.C.B. CD-Tape		C 5
46 850 00	Phono-Vorverstärkerplatine	Pre-amplifier phono		C 3
26 797 00	IC LA 1260	IC LA 1260	IC 1	B 4
26 476 00	IC LB 1403 N	IC LB 1403 N	IC 503	B 2
46 829 00	IC LB 1641	IC LB 1641	IC 303	B 2
31 481 00	IC UPD 1708 A	IC UPD 1708 A	IC 201	D 2
38 286 00	IC TDA 2025	IC TDA 2025	IC 501/502	B 7
32 997 00	IC LA 3161	IC LA 3161	IC 901	B 0
40 037 00	IC LA 3226 T	IC LA 3226 T	IC 403	B 2
40 799 00	IC LA 3246	IC LA 3246	IC 401	B 2
21 596 00	IC LA 3361	IC LA 3361	IC 2	B 1
21 330 00	IC LC 4013 B	IC LC 4013 B	IC 302	B 5
32 998 00	IC TC 4066 BP	IC TC 4066 BP	IC 402	B 0
46 830 00	IC LC 6546C – 4059	IC LC 6546C – 4059	IC 301	C 4
45 988 00	Transistor 2 SC 564 Q	Transistor 2 SC 564 Q	Diverse	A 2
37 957 00	Transistor 2 SA 1177 E	Transistor 2 SA 1177 E	Q 1	A 3
13 545 00	Transistor 2 SC 536 NP-F	Transistor 2 SC 536 NP-F	Diverse	A 3
08 012 00	Transistor 2 SC 1317	Transistor 2 SC 1317	Q 406	A 5
03 713 00	Transistor 2 SC 1383 Q	Transistor 2 SC 1383 Q	Q 601/610	A 7
24 533 00	Transistor 2 SC 2634 S	Transistor 2 SC 2634 S	Q 801-806	A 3
44 764 00	Transistor 2 SD 1913 R	Transistor 2 SD 1913 R	Q 605	A 1
34 691 00	Transistor 2 SC 2878	Transistor 2 SC 2878	Q 501/502	A 3
11 241 00	Diode 1 N 4148	Diode 1 N 4148	Diverse	A 2
40 288 00	Diode KV 1236 Z 2	Diode KV 1236 Z 2	D 1	B 7
12 039 00	Diode 10 D 1 Sil.	Diode 10 D 1 Sil.	Diverse	A 4
26 552 00	Diode 30 D-1 FC	Diode 30 D-1 FC	D 604-607	A 4
21 413 00	Zenerdiode GZA 15 Z	Zenerdiode GZA 15 Z	D 602	A 2
21 350 00	Zenerdiode GZA 6,2 X od. Y	Zenerdiode GZA 6.2 X or Y	D 207/304	A 3
21 745 00	Zenerdiode GZA 6,8 Y	Zenerdiode GZA 6.8 Y	D 601	A 3
29 597 00	Leuchtdiode SLR-34VR5 (rot)	LED SLR-34VR5 (red)	D 403/506	A 4
32 768 00	Leuchtdiode SLR-34 DU5 (orange)	LED SLR-34 DU5 (orange)	D 401/402/501-505	A 4
37 414 00	Leuchtdiode SEL 2310 S GN (grün)	LED SEL 2310 S GN (green)	D 404	A 2
12 110 00	Filter Keramik 10.7-B	Ceramic filter 10.7-B	F 1, 2	A 6
46 831 00	Ferritantenne LW/MW	Bar antenna coil LW/MW	L 2	B 4
37 882 00	Spule 39mH	Choke coil 39mH	L 7, 8	A 3
34 320 00	Drossel 100 µH	Choke coil 100 µH	L 1, 5	A 3
45 992 00	Keramik-Filter SFZ 455	AM ceramic filter	F 3	B 0
24 372 00	Spule AM	Filter coil	L 6	A 6
34 322 00	Spule AM	AM IFT coil	IF 2	A 4
40 293 00	Spule FM-ZF LB 0511	FM Det coil	IF 1	A 4
34 324 00	Spule Netzleitung	Air coil	L 601/602	A 1
40 291 00	Spule MW-Oszillator LB 0541	MW osc. coil	L 4	A 3
34 325 00	Spule Löschoszillator	Tape osc. coil	L 403	A 5
45 991 00	Spule LW-Oszillator	LW osc. coil	L 3	A 4
34 326 00	Fangspule	Trap coil	L 401/402	A 4
31 482 00	Quarz 4,5 MHz	X-tal 4.5 MHz	X 201	A 8
46 839 00	Keramik-Oszillator CSA 4,00 MHz	Ceramic resonator CSA 4.00 MHz	X 301	A 7
46 834 00	Drehwiderstand 100 K Balance	Rotary VR 100 K Balance	VR 803	B 1
46 835 00	Drehwiderstand 100 K Klang	Rotary VR 100 K Tone	VR 801/802	B 2
46 836 00	Motor-Drehwiderstand 100 K Volumen	Rotary VR with motor 100 K Volume	VR 501	D 0
37 022 00	Trimmpoti 1 K	Semi-fixed resistor 1 K	R 24	A 4
37 444 00	Trimmpoti 2,2 K	Semi-fixed resistor 2.2 K	R 462/464	A 3
37 443 00	Trimmpoti 10 K	Semi-fixed resistor 10 K	R 19	A 3
18 576 00	Sicherungswiderstand 1 Ohm/¼ W	Fuse resistor 1 Ohm/¼ W	R 505-508	A 2
18 558 00	Sicherungswiderstand 220 Ohm/¼ W	Fuse resistor 220 Ohm/¼ W	R 458	A 4
32 072 00	Sicherungswiderstand 22 Ohm/½ W	Fuse resistor 22 Ohm/½ W	R 321/466	A 3
34 335 00	Sicherungswiderstand 39 Ohm/½ W	Fuse resistor 39 Ohm/½ W	R 918	A 1
31 823 00	Sicherungswiderstand 220 Ohm/½ W	Fuse resistor 220 Ohm/½ W	R 602	A 7
26 168 00	Sicherungswiderstand 1 Ohm/½ W	Fuse resistor 1 Ohm/½ W	R 607	A 2
44 086 00	Trimmer-Kond. VTC 51A 144A 6PF	Trimmer capacitor 6 pF	C 9	A 4
24 377 00	Trimmer-Kond. VTC 51F 133A 30PF	Trimmer capacitor 30 pF	C 7	A 3
46 837 00	Display Tuner LTP6M9011A	Display Tuner LTP6M9011A		C 7
46 838 00	Display CD LTP4R2011A	Display CD LTP4R2011A		C 6
40 306 00	Tuner FE 407/ET-A036	Tuner FE 407/ET-A036		D 6
46 840 00	Lämpchen 15 V 30 mA	Pilot lamp 15 V/30 mA		A 4
46 994 00	IR-Empfänger Queens 160	IR receiver Queens 160		C 2
46 841 00	Netztrafo	Power transformer		D 8
34 545 00	Tipptaste	Tact switch	Diverse	A 3
34 033 00	A/W-Schiebeschalter	Rec./Playback switch	S 401 a-d	A 8
44 089 00	Netzschalter	Power switch	SW 301	B 0
29 747 00	Tastenschalter	Push switch	SW 402/403	B 1
46 832 00	Tastensatz 7fach Funktion	Function switch	SW 1-8	C 6
34 034 00	Mikrofonbuchse	Microphone jack		B 3
46 842 00	Buchse Kopfhörer	Head phone jack		B 0
24 358 00	Buchse Antenne	Antenna jack		A 6
34 338 00	Buchse Lautsprecher (Doppel)	Speaker DIN jack		A 7
32 952 00	Buchse Chinch CD	2-Pin RCA jack		A 6

ALIGNMENT PROCEDURE

MODEL Q160

1

LW

GENERAL ALIGNMENT CONDITIONS

1. Signal input must be kept as low as possible to avoid overload and clipping. (Use highest possible sensitivity of output indicator.)
2. Signal input should be kept as low as possible to avoid A.G.C action. (Set output indicator to highest sensitvity.)
3. Marker insertion and amplitude should not distort the oscillator and amplitude should not distort the oscilloscope trace.
4. Standard modulation is 400 Hz 30% .

INSTRUMENT REQUIRED

Signal source	Output indicators
* AM signal generator *	* AC millivolt meter *
* Radio sweep generator *	* Oscilloscope *
* Sweep oscilloscope *	

STEP	CONNECT SIGNAL SOURCE TO –	CONNECT OUTPUT INDICATOR –	SET SIGNAL OR INSERT MARKER	SET RADIO DIAL TO –	ADJUST	ADJUST FOR –
1	Set function selector switch on the front panel to " LW " position.					
2	Sweep generator connected to a loop or short piece of wire placed near AM antenna	Sweep oscilloscope connected to wire pin of the C 43 or C 44 and bolume to maximun	See amplitude of 455 KHz	Quiet point on band near 515 KHz	IF 2	Amplitude of filter
3	Signal generator connected to a loop	AC millivolt meter and oscilloscope connected across speaker	137 KHz	137 KHz	LW OSC L 3	maximum
4			290 KHz	290 KHz		
5			170 KHz	170 KHz	LW BAR ANT COIL	
6			270 KHz	270 KHz	RF Trimmer C 7	
7	Repeat step 3 through 6 as necessary to obtain maximum sensitivity on station.					

ALIGNMENT PROCEDURE

MODEL Q160

2

MW

GENERAL ALIGNMENT CONDITIONS

1. Signal input must be kept as low as possible to avoid overload and clipping. (Use highest possible sensitivity of output indicator.)
2. Signal input should be kept as low as possible to avoid A.G.C. action. (Set output indicator to highest sensitivity.)
3. Maker insertion and amplitude should not distort the oscillator and amplitude should not distort the oscilloscope trace.
4. Standard modulation is 400 Hz.

INSTRUMENTS REQUIRED

Signal source	Output indicators
* AM signal generator *	* AC millivolt meter *
* Radio sweep generator *	* Oscilloscope *
* Sweep oscilloscope *	

STEP	CONNECT SIGNAL SOURCE TO -	CONNECT OUTPUT INDICATOR -	SET SIGNAL OR INSERT MARKER	SET RADIO DIAL TO -	ADJUST	ADJUST FOR -
1	Set function selector switch on the front panel to " MW " position.					
2	Sweep generator connected to a loop or short piece of wire placed near AM antenna	Sweep oscilloscope connected to wire pin of the C 43 of C 44 and volume to mzximum	See amplitude of 455 KHz	Quiet point on band near 513 KHz	F 2	Ampltude of filter
3	Signal generator connected to a loop	AC millivolt meter and oscilloscope connected across spraker	513 KHz	513 KHz	AM OSC L 4	maximum
4			1620 KHz	1620 KHz		
5			600 KHz	600 KHz	AM BAR ANT COIL	
6			1400 KHz	1400 KHz	RF Trimmer C - 9	
7	Repeat step 3 through 6 necessary to obtain maximum sensitivity on station.					

ALIGNMENT PROCEDURE

MODEL Q160

3

FM

GENERAL ALIGNMENT CONDITION

1. Signal input must be kept as low as possible to avoid ocerload clipping. (Use highest possitivity of output indicator.)
2. Makers must be accurate (crystal controlled or calibrated). The 10.7 MHz marker used in each section of the FM alignment must be the same.
3. Signal input should be kept as low as possible to avoid A.G.C. action. (Set output indicator to highest sensitivity.)
4. FM signal generator RF output frequency must be monitoring.
5. Standard modulation is 1 KHz (40 KHz)

INSTRUMENTS REQUIRED

Signal sources	Output indicators
* FM signal generator *	* AC millivolt meter *
* Radio sweep generator *	* Oscilloscope *
* Sweep oscilloscope *	* 114 KHz signal generator *
* Frequency counter *	

STEP	CONNECT SIGNAL SOURCE TO -	CONNECT OUTPUT INDICATOR TO -	SET SIGNAL OR INSERT MARKER	SET RADIO DIAL TO	ADJUST	ADJUST FOR -
1	Set function selector switch on the front panel to " FM " position.					
2	Radio sweep generator connect to FM front ent tuner pin 3	Oscilloscope connected to wire pin of the C 43 of C 44 and volume VR to maximum	10.6 10.7 10.8 MHz marker	Quiet scale pointer on band	IF 1	Straightness and symmetry of " S " curve with 10.7 MHz makerd at zero crossover

ALIGNMENT PROCEDURE

MODEL Q160

4

MPX

GENERAL ALIGNMENT CONDITION

1. Adjust FM signal generator output to 1mV (60dB) with MPX modulation 1 KHz

   Deviation = 33.75 KHz   Pilot = 6 KHz

INSTRUMENTS REQUIRED

Signal source	Output indicator
* FM signal generator *	* Frequency counter *
* Stereo signal generator *	* AC millivolt meter *
	* Oscilloscope *

STEP	CONNECT SIGNAL SOURCE TO -	CONNECT OUTPUT INDICATOR TO -	SET SIGNAL	SET RADIO DIAL	ADJUST	ADJUST FOR -
1	Set function selector switch on the front panel to " FM STEREO " Position.					
2	FM signal generator connected to FM aerial	Frequency counter connect to MPX test point	98 MHz and modulation off, pilot signal off too	98 MHz	R - 19	19.00 KHz + / - 50 Hz

---

Abgleichanweisung Cassette Queens 160

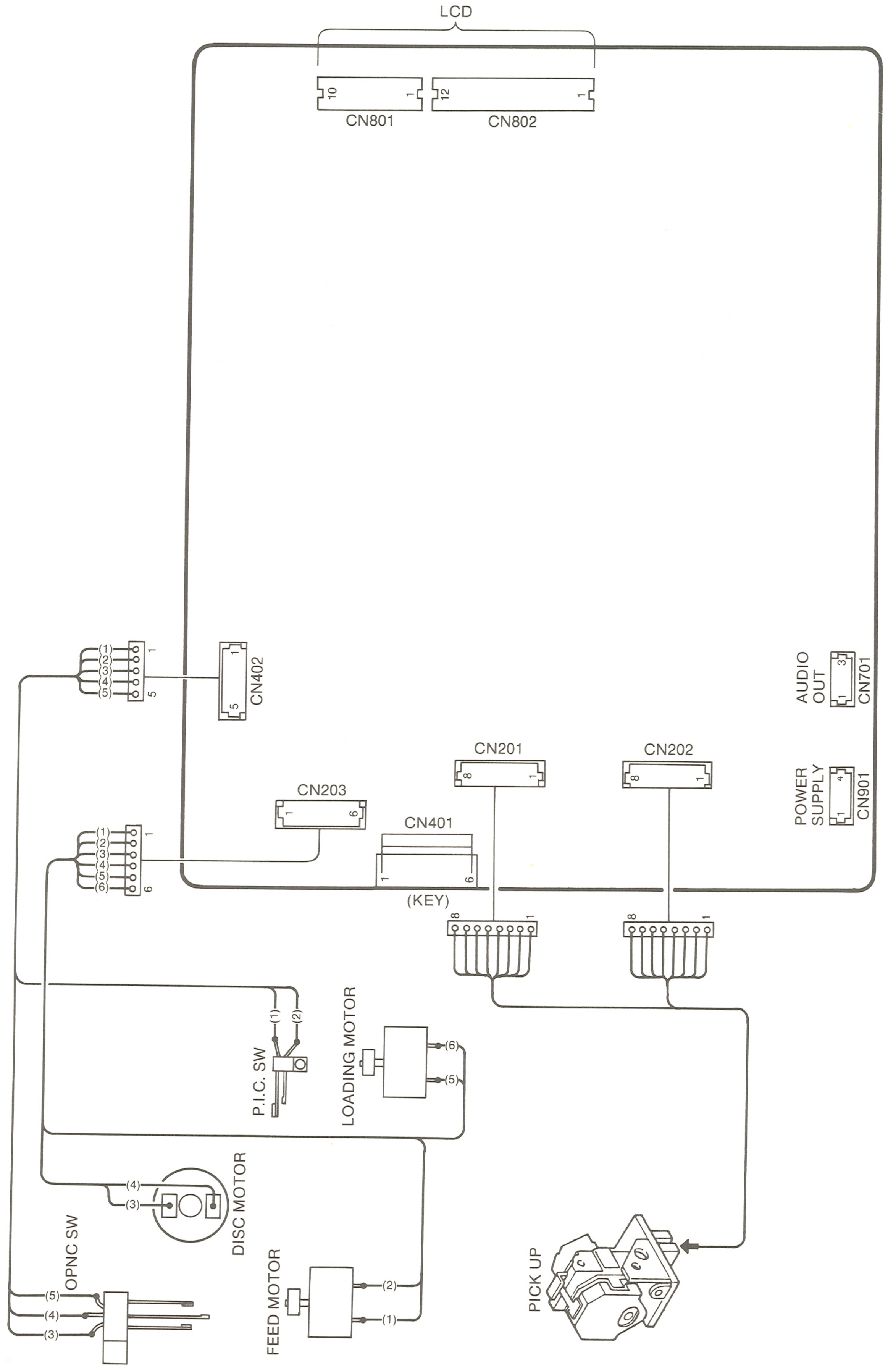
Alignment procedure cassette Queens 160

TAPE POSITION Recorderstellung	**TEST TAPE Testcassette**	**MEASURING INSTRUMENT Meßgerät**	**TESTPOINT Meßpunkt**	**ADJUSTMENT LOCATION Abgleichpunkt**	**MEASURING SIGNAL Meßsignal**
1. Head azimuth/A/W-Kopf-Einstellung					
PLAYBACK	MTT-114 N 10 kHz	V.T.V.M AC-Millivoltmeter	OUT L CH OUT R CH	AZIMUTH SCREW	NF-max.
2. Tape speed/Geschwindigkeit					
PLAYBACK LOW	MTT- 111 N 3000 Hz	FREQUENCY COUNTER Frequenzzähler	OUT L/R CH	R 464	3000 Hz
PLAYBACK HIGH	MTT-111 N 3000 Hz		OUT L/R CH	R 462	4800 Hz
3. Oscillator coil frequency/Oszillatorfrequenz					
RECORD	AC-212 IEC-I	FREQUENCY COUNTER Frequenzzähler	ERASE HEAD Löschkopf	L 403	85 kHz +/–5 kHz

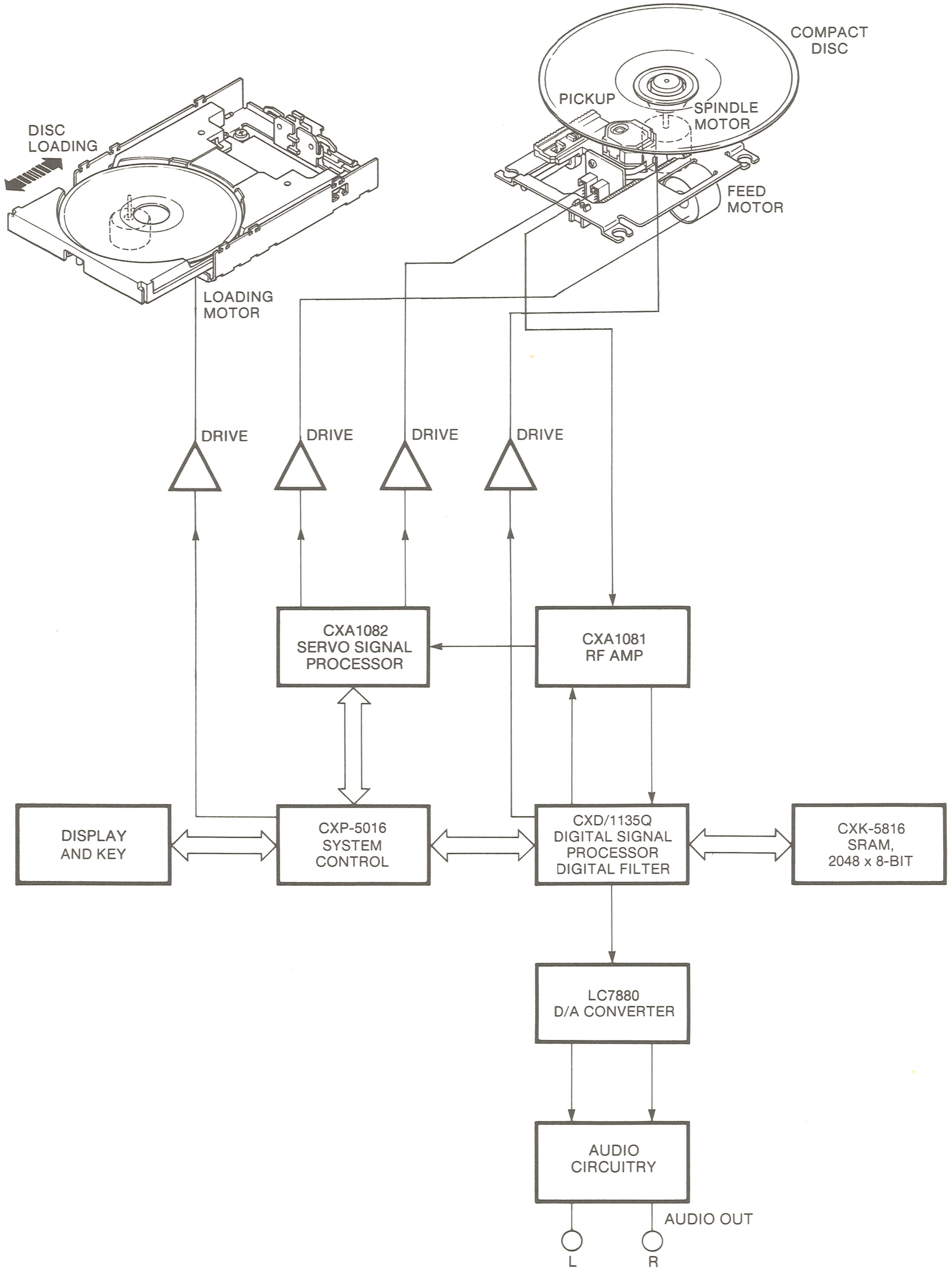
Löschspannung: ca. 100 Vss

Vormagnetisierung: ca. 34 Vss

Verdrahtungsplan CD-Player Queens 160/Queens 200
Wiring diagram CD player Queens 160/Queens 200

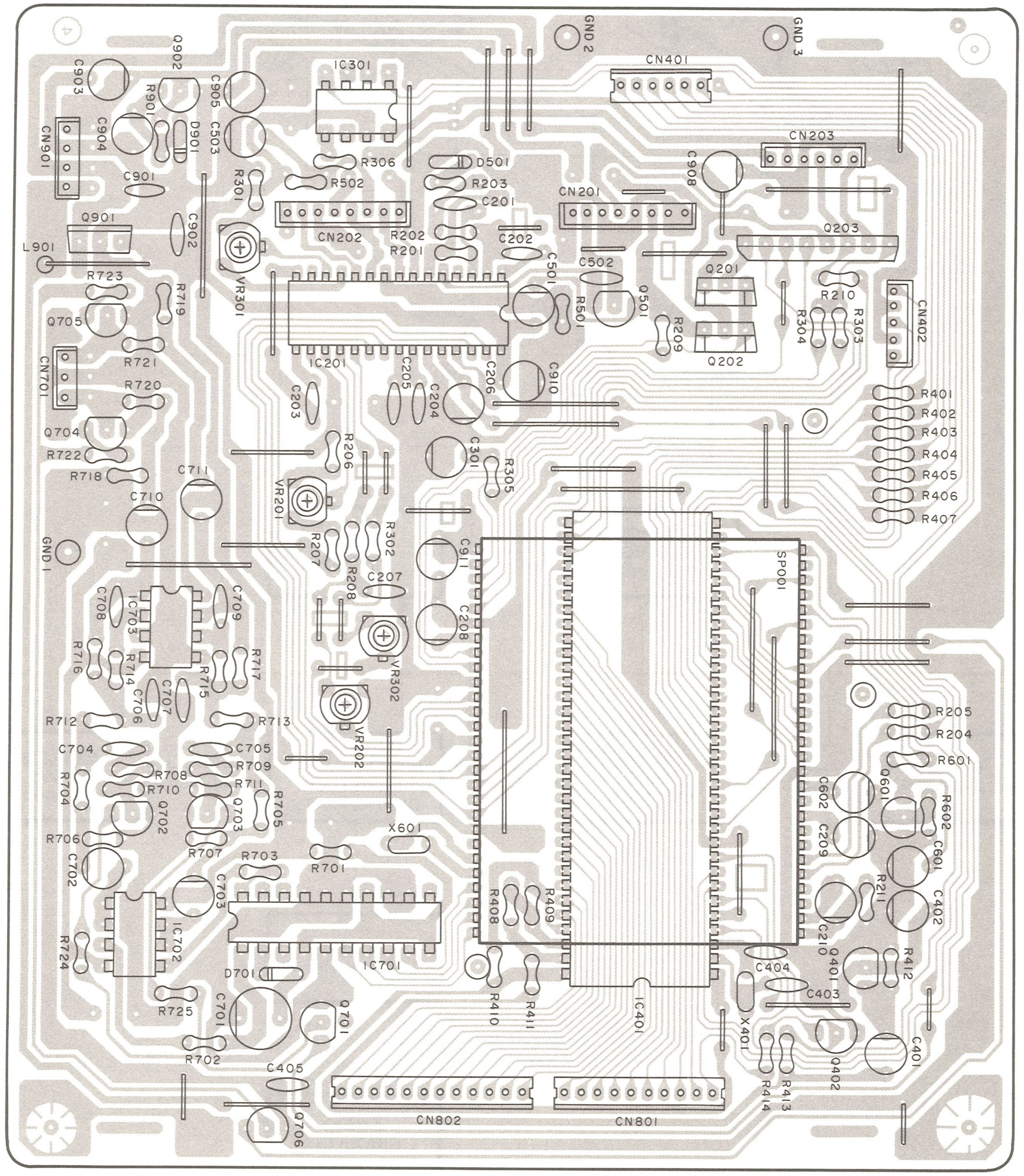

LCD
CN801
CN802
CN402
CN203
CN201
CN202
CN401
(KEY)
AUDIO OUT
CN701
POWER SUPPLY
CN901
P.I.C. SW
LOADING MOTOR
DISC MOTOR
OPNC SW
FEED MOTOR
PICK UP

Blockdiagramm CD-Player Queens 160/Queens 200
Block diagram CD player Queens 160/Queens 200


COMPACT DISC
PICKUP
SPINDLE MOTOR
DISC LOADING
FEED MOTOR
LOADING MOTOR
DRIVE
DRIVE
DRIVE
DRIVE
CXA1082 SERVO SIGNAL PROCESSOR
CXA1081 RF AMP
DISPLAY AND KEY
CXP-5016 SYSTEM CONTROL
CXD/1135Q DIGITAL SIGNAL PROCESSOR DIGITAL FILTER
CXK-5816 SRAM, 2048 x 8-BIT
LC7880 D/A CONVERTER
AUDIO CIRCUITRY
AUDIO OUT
L
R

CD-Platine
CD P.C.B.

Bestückungsseite
Top view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GND 3
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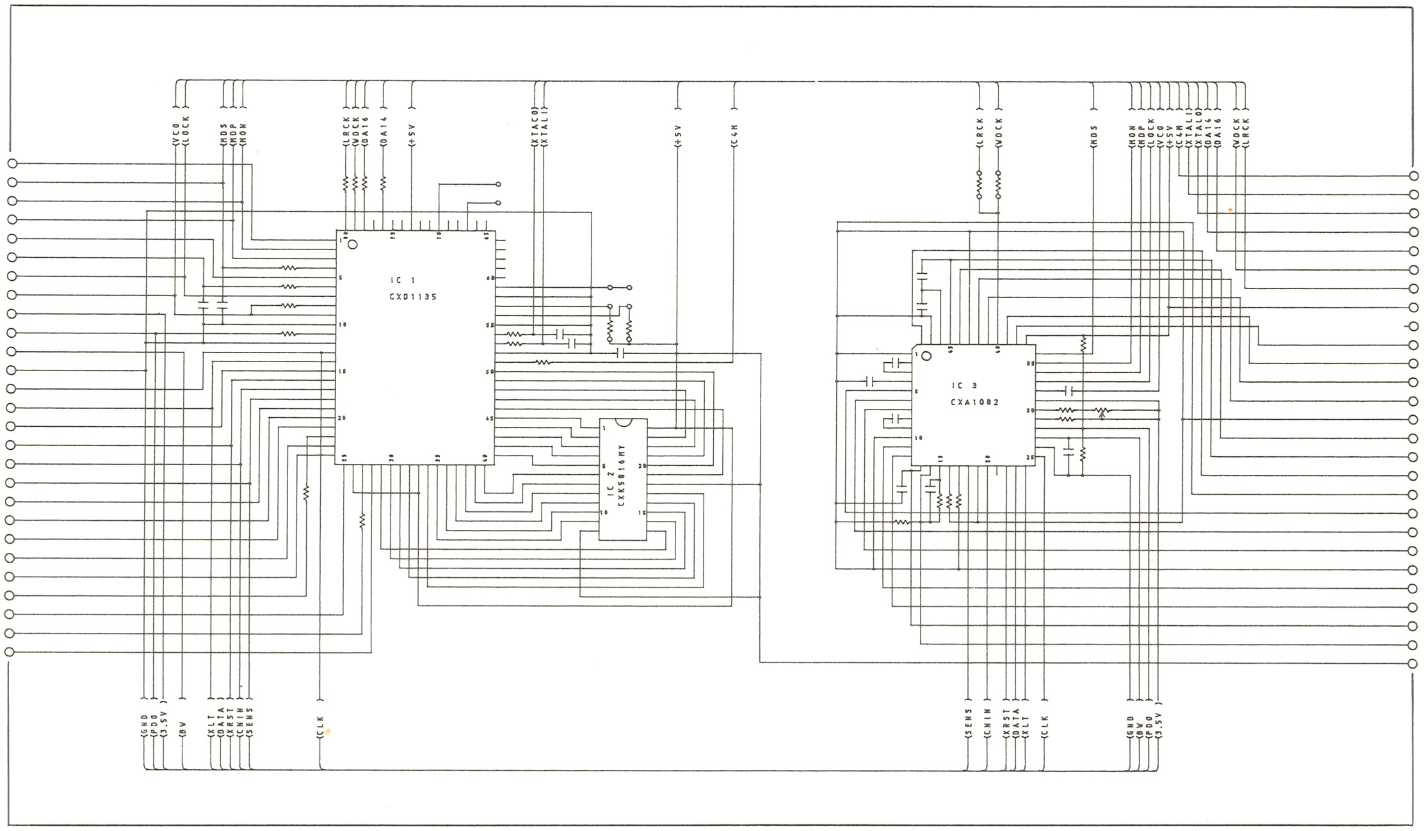
IC301
CN203
Q902
C903
R901
C905
C503
D901
CN901
C904
C901
R301
R306
R502
D501
R203
C201
C908
CN201
Q901
C902
CN202
R202
R201
C202
Q203
L901
R723
R719
VR301
C501
C502
Q201
R210
CN402
Q705
R50
Q501
R209
R304
R303
CN701
R721
IC201
C205
C206
C910
Q202
R720
C203
C204
R401
Q704
R206
C301
R402
R722
R403
R718
C711
R404
C710
VR201
R305
R405
R406
R407
R207
R302
C911
SP001
GND 1
R208
C207
C708
IC703
C709
C208
R716
R714
R715
R717
C706
C707
VR302
R205
R712
R713
VR202
R204
C704
C705
R601
R708
R709
R710
R711
C602
Q601
R704
Q702
Q703
R705
R602
X601
C209
R706
R707
R703
R701
C601
C702
R211
C703
C402
R408
R409
IC702
C210
R724
IC701
R412
D701
C404
Q401
R410
R411
C403
C701
IC401
R725
Q701
X401
C401
R702
Q402
C405
R413
R414
CN802
CN801
Q706

Schaltbild IC-Zusatzplatine SP001 CPC-S2101 zu CD-Player
Circuit diagram Sub P.C.B. SP001 CPC-S2101 for CD player


FSW
MDS
MON
MDP
EFM
ASY
LOCK
VCO
3.5V
PDO
BW
GND
CLK
XLT
DATA
XRST
CNIN
SENS
MUTG
CRCF
EXCK
SUBO
SCOR
SBSO
SQCK
DTOX
GFS
IC 1
CXD1135
IC 2
CXK5816MY
IC 3
CXA1082
LRCK
WDCK
DA16
DA14
XTACO
XTALI
C4M
+5V
NC
SPDL-
SPDLO
FOK
MIRR
-5V
DFCT
TE
FE
VC
FEO
FE-
SRCH
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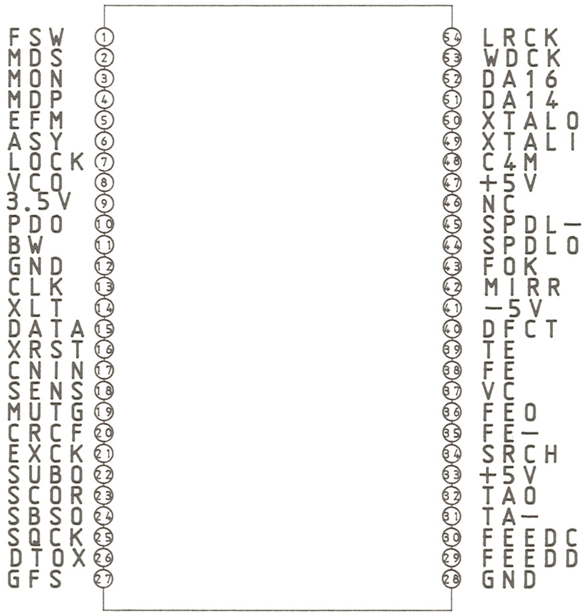
TAO
TA-
FEEDC
FEEDD
GND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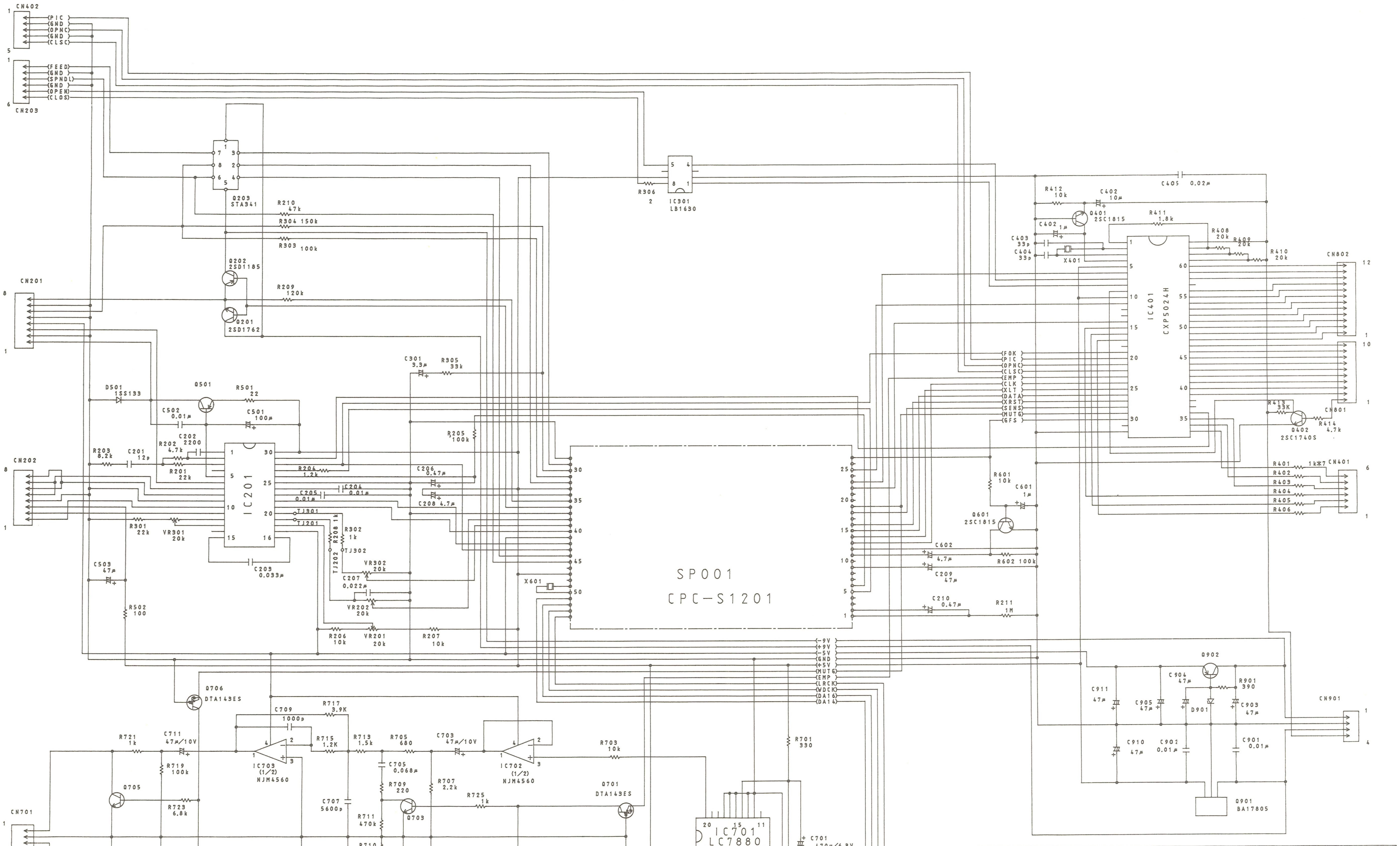
MDS ②
MON ③
MDP ④
EFM ⑤
ASY ⑥
LOCK ⑦
VCO ⑧
3.5V ⑨
PDO ⑩
BW ⑪
GND ⑫
CLK ⑬
XLT ⑭
DATA ⑮
XRST ⑯
CNIN ⑰
SENS ⑱
MUTG ⑲
CRCF ⑳
EXCK ㉑
SUBO ㉒
SCOR ㉓
SBSO ㉔
SQCK ㉕
DTOX ㉖
GFS ㉗
(54) LRCK
(53) WDCK
(52) DA16
(51) DA14
㊿ XTALO
㊾ XTALI
㊽ C4M
㊼ +5V
㊻ NC
㊺ SPDL-
㊹ SPDLO
㊸ FOK
㊷ MIRR
㊶ -5V
㊵ DFCT
㊴ TE
㊳ FE
㊲ VC
㊱ FEO
㉟ FE-
㉞ SRCH
㉝ +5V
㉜ TAO
㉛ TA-
㉚ FEEDC
㉙ FEEDD
㉘ GND

Schaltbild CD-Player Queens 160/Queens 200
Circuit diagram CD player Queens 160/Queens 200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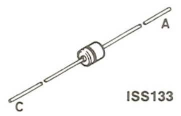
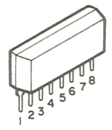
GND
OPNC
GND
CLSC
FEED
GND
SPNDL
GND
OPEN
CLOS
CN203
Q203
STA341
R210 47k
R304 150k
R303 100k
Q202 2SD1185
R209 120k
Q201 2SD1762
R306 2
IC301 LB1630
C405 0.02μ
R412 10k
C402 10μ
Q401 2SC1815
R411 1.8k
C409 33p
C404 33p
X401
R408 20k
R409 20k
R410 20k
IC401 CXP5024H
CN802
CN201
C301 3.3μ
R305 39k
D501 1SS133
Q501
R501 22
C502 0.01μ
C501 100μ
R205 100k
FOK
PIC
OPNC
CLSC
EMP
CLK
XLT
DATA
XRST
SENS
MUTG
GFS
R413 33K
Q402 2SC1740S
R414 4.7k
CN801
CN202
R203 8.2k
C201 12p
R202 4.7k
C202 2200
R201 22k
IC201
R204 1.2k
C205 0.01μ
C204 0.01μ
C206 0.47μ
C208 4.7μ
TJ901
TJ201
R208 1k
R302 1k
TJ302
TJ202
R901 22k
VR901 20k
C203 0.033μ
VR302 20k
C207 0.022μ
VR202 20k
C503 47μ
R502 100
X601
SP001
CPC-S1201
R601 10k
C601 1μ
Q601 2SC1815
C602 4.7μ
R602 100k
C209 47μ
C210 0.47μ
R211 1M
R401 1k×7
R402
R403
R404
R405
R406
CN401
R206 10k
VR201 20k
R207 10k
-9V
+9V
-5V
GND
+5V
MUTG
EMP
LRCK
WDCK
DA16
DA14
Q902
C904 47μ
R901 390
C911 47μ
C905 47μ
D901
C903 47μ
CN901
C910 47μ
C902 0.01μ
C901 0.01μ
Q901 BA17805
Q706 DTA143ES
C709 1000p
R717 3.9K
R721 1k
C711 47μ/10V
R715 1.2K
R719 100k
IC703 (1/2) NJM4560
R713 1.5k
R705 680
C703 47μ/10V
IC702 (1/2) NJM4560
R703 10k
C705 0.068μ
R709 220
R707 2.2k
Q705
R723 6.8k
C707 5600p
Q703
R725 1k
Q701 DTA143ES
R711 470k
R710 470k
CN701
Q702
R724 1k
IC701 LC7880
R701 330
C701 470μ/6.3V
Q704
R722 6.8k
C706 5600p
R708 220
R706 2.2k
D701 1SS133
R718 100k
R720 1k
IC703 (1/2)
R714 1.2K
R712 1.5k
C704 0.068μ
R702 10K
IC702 (1/2)
C710 47μ/10V
R704 680
C702 47μ/10V
C708 1000p
R716 3.9k

RARTS No.		UNIT	RARTS No.	PARTS NAME	
R209	51k~180k	Ω	Q401	2SC1815 or 2SC1740	
R210	24k~75k		Q501	2SC950 or 2SC934	
R303	75k~240k		Q601	2SC1815 or 2SC1740	
R304	51k~150k		Q702	2SC1815 or 2SC1740	
R306	0~15		Q703	2SC1815 or 2SC1740	
R408	10k~30k		Q704	2SC1815 or 2SC1740	
R409	10k~30k		Q705	2SC1815 or 2SC1740	
R410	10k~30k		Q902	2SC950 or 2SC934	
R411	910~2.7k		Q901	BA17805 or HA17805	
R716	2.2k~6.2k		R201	3.0k~30k	Ω
R717	2.2k~6.2k		R202	3.0k~30k	

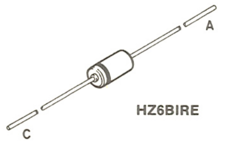
IC- und Transistor-Blockschaltbilder für CD-Player
IC and transistor block diagrams for CD player



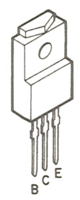
ISS133 D501, 701



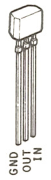
STA341M Q203



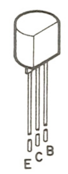
HZ6BIRE D901



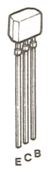
2SD1762 Q201
2SB1185 Q202



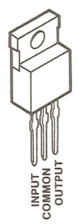
DTA143ES Q701, 706



2SA950 Q501, 902

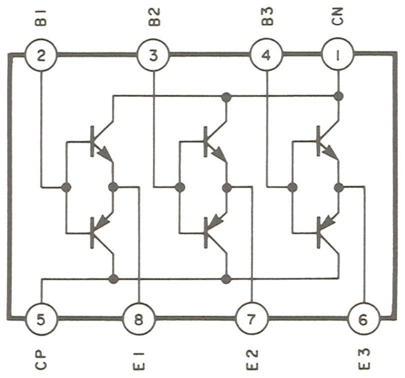


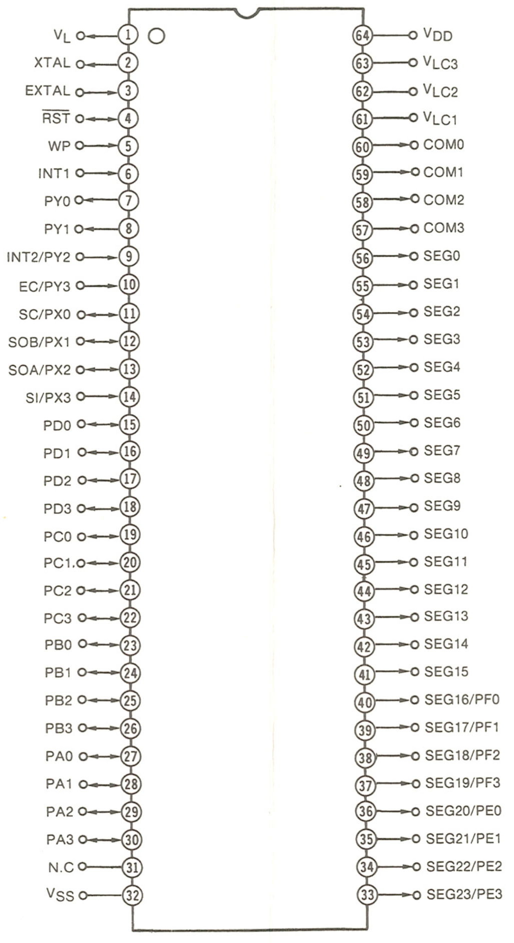
2SC1740 Q401, 402, 601, 702
Q703, 704, 705


INPUT
COMMON
OUTPUT

BA17805 Q901

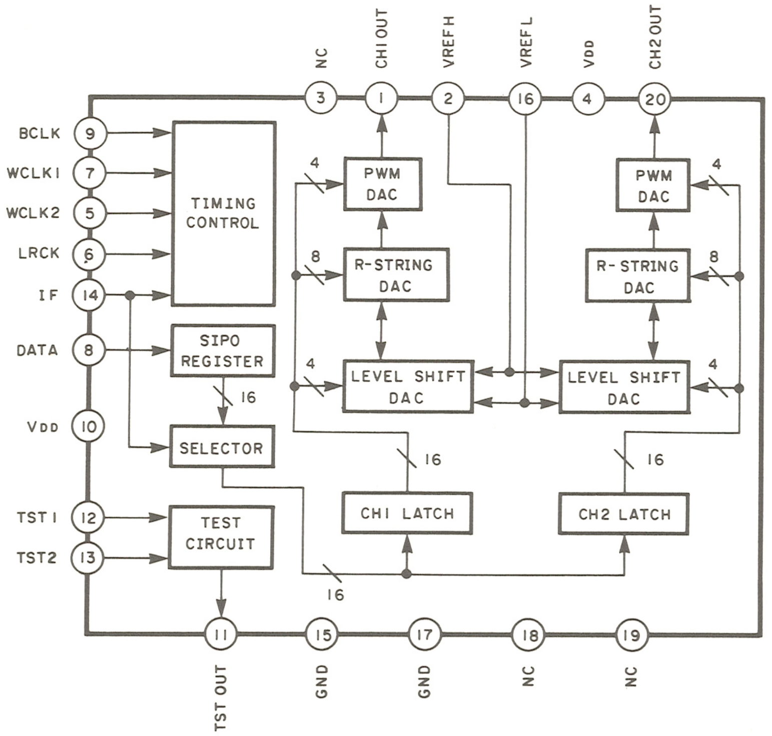
Q203 STA341M


B1
B2
B3
CN
2
3
4
1
5
8
7
6
CP
E1
E2
E3


V_L
1
XTAL
2
EXTAL
3
$\overline{RST}$
4
WP
5
INT1
6
PY0
7
PY1
8
INT2/PY2
9
EC/PY3
10
SC/PX0
11
SOB/PX1
12
SOA/PX2
13
SI/PX3
14
PD0
15
PD1
16
PD2
17
PD3
18
PC0
19
PC1.
20
PC2
21
PC3
22
PB0
23
PB1
24
PB2
25
PB3
26
PA0
27
PA1
28
PA2
29
PA3
30
N.C
31
V_{SS}
32
64
V_{DD}
63
V_{LC3}
62
V_{LC2}
61
V_{LC1}
60
COM0
59
COM1
58
COM2
57
COM3
56
SEG0
55
SEG1
54
SEG2
53
SEG3
52
SEG4
51
SEG5
50
SEG6
49
SEG7
48
SEG8
47
SEG9
46
SEG10
45
SEG11
44
SEG12
43
SEG13
42
SEG14
41
SEG15
40
SEG16/PF0
39
SEG17/PF1
38
SEG18/PF2
37
SEG19/PF3
36
SEG20/PE0
35
SEG21/PE1
34
SEG22/PE2
33
SEG23/PE3

IC401 CXP5024H

IC 701 LC7880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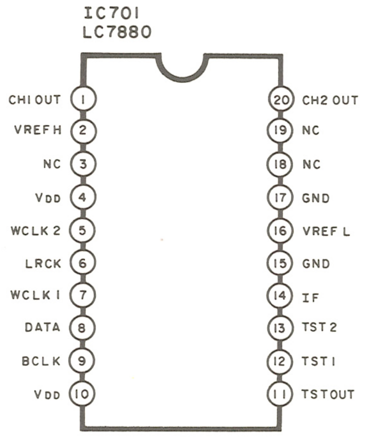
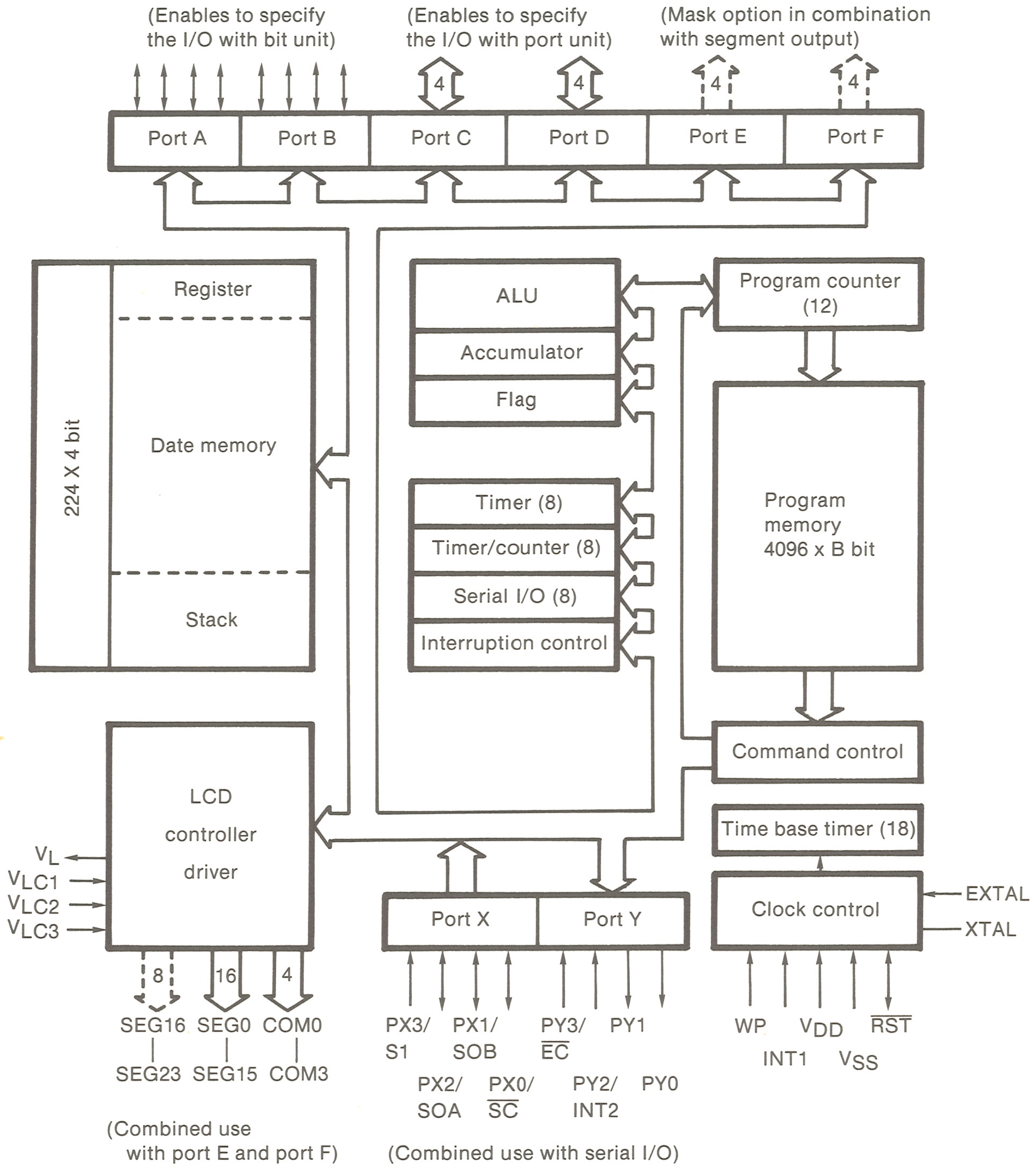
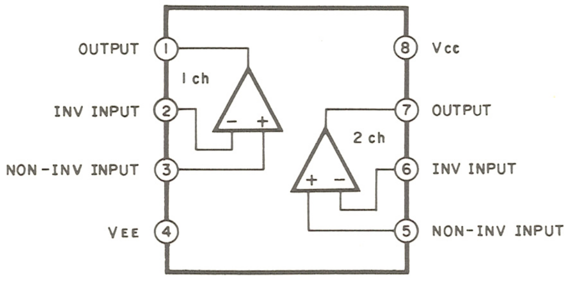
CH1 OUT
VREF H
VREF L
VDD
CH2 OUT
3
1
2
16
4
20
BCLK
9
WCLK1
7
WCLK2
5
LRCK
6
IF
14
DATA
8
VDD
10
TST1
12
TST2
13
TIMING CONTROL
SIPO REGISTER
SELECTOR
TEST CIRCUIT
PWM DAC
R-STRING DAC
LEVEL SHIFT DAC
CH1 LATCH
PWM DAC
R-STRING DAC
LEVEL SHIFT DAC
CH2 LATCH
4
8
4
16
16
16
4
8
4
16
11
15
17
18
19
TST OUT
GND
GND
NC
NC

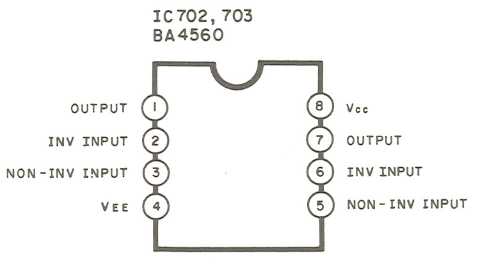

IC701
LC7880
CH1 OUT
1
VREF H
2
NC
3
VDD
4
WCLK 2
5
LRCK
6
WCLK 1
7
DATA
8
BCLK
9
VDD
10
20
CH2 OUT
19
NC
18
NC
17
GND
16
VREF L
15
GND
14
IF
13
TST 2
12
TST1
11
TSTOUT


(Enables to specify the I/O with bit unit)
(Enables to specify the I/O with port unit)
(Mask option in combination with segment output)
4
4
4
4
Port A
Port B
Port C
Port D
Port E
Port F
224 X 4 bit
Register
Date memory
Stack
ALU
Accumulator
Flag
Timer (8)
Timer/counter (8)
Serial I/O (8)
Interruption control
Program counter (12)
Program memory 4096 x B bit
Command control
Time base timer (18)
Clock control
EXTAL
XTAL
V_L
V_{LC1}
V_{LC2}
V_{LC3}
LCD controller driver
8
16
4
SEG16
SEG23
SEG0
SEG15
COM0
COM3
(Combined use with port E and port F)
Port X
Port Y
PX3/ S1
PX1/ SOB
PY3/ $\overline{EC}$
PY1
PX2/ SOA
PX0/ $\overline{SC}$
PY2/ INT2
PY0
(Combined use with serial I/O)
WP
V_{DD}
$\overline{RST}$
INT1
V_{SS}

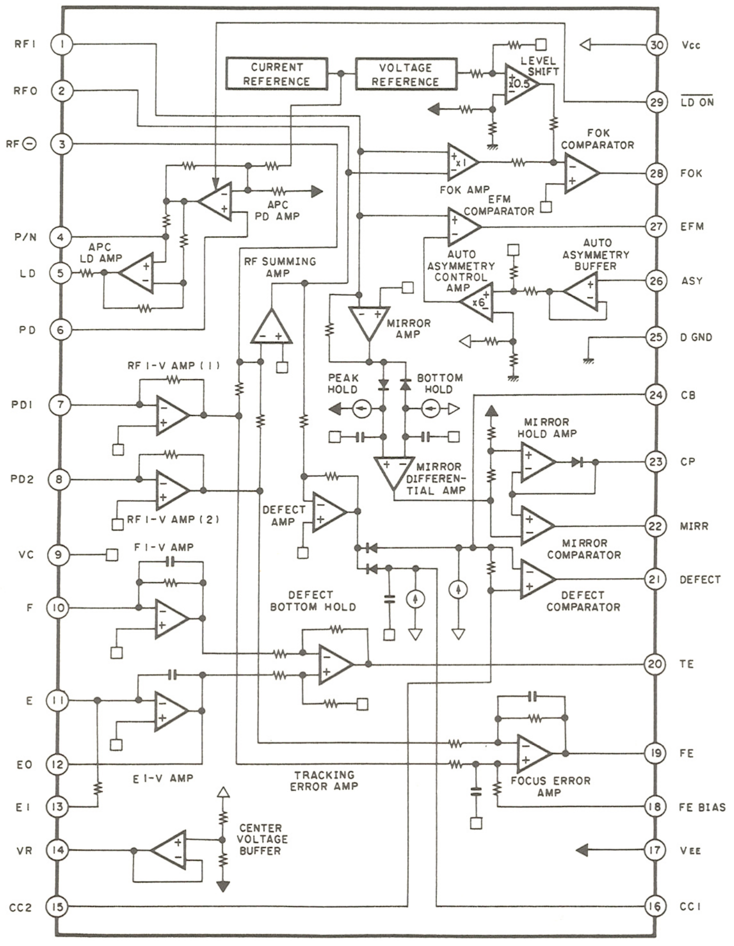
IC401 CXP5024H

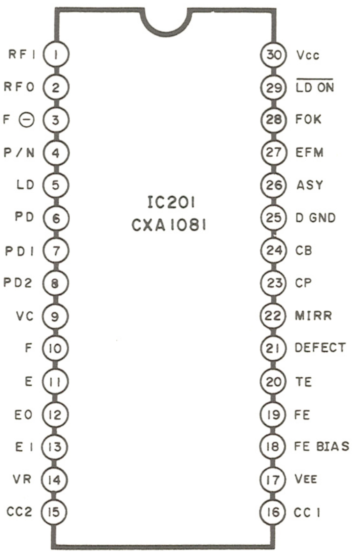
IC 702, 703
BA4560

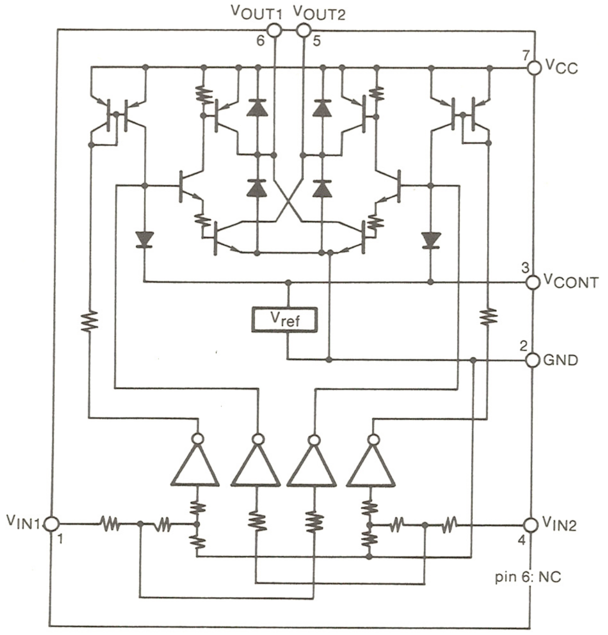

OUTPUT
1
INV INPUT
2
NON-INV INPUT
3
VEE
4
8
Vcc
7
OUTPUT
6
INV INPUT
5
NON-INV INPUT
1 ch
2 ch
−
+
+
−


IC702, 703
BA4560
OUTPUT
1
INV INPUT
2
NON-INV INPUT
3
VEE
4
8
Vcc
7
OUTPUT
6
INV INPUT
5
NON-INV INPUT

IC 201 CXA1081

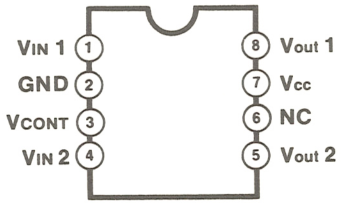

RF I
RF O
RF ⊖
P/N
LD
PD
PD I
PD 2
VC
F
E
EO
E I
VR
CC2
Vcc
LD ON
FOK
EFM
ASY
D GND
CB
CP
MIRR
DEFECT
TE
FE
FE BIAS
VEE
CC I
CURRENT REFERENCE
VOLTAGE REFERENCE
LEVEL SHIFT
FOK COMPARATOR
FOK AMP
EFM COMPARATOR
APC PD AMP
APC LD AMP
RF SUMMING AMP
AUTO ASYMMETRY CONTROL AMP
AUTO ASYMMETRY BUFFER
MIRROR AMP
PEAK HOLD
BOTTOM HOLD
MIRROR HOLD AMP
MIRROR DIFFERENTIAL AMP
RF I-V AMP (1)
RF I-V AMP (2)
DEFECT AMP
MIRROR COMPARATOR
DEFECT COMPARATOR
F I-V AMP
DEFECT BOTTOM HOLD
E I-V AMP
TRACKING ERROR AMP
FOCUS ERROR AMP
CENTER VOLTAGE BUFFER


IC201
CXA1081
RF I 1
RF O 2
RF ⊖ 3
P/N 4
LD 5
PD 6
PD I 7
PD 2 8
VC 9
F 10
E 11
EO 12
E I 13
VR 14
CC2 15
30 Vcc
29 LD ON
28 FOK
27 EFM
26 ASY
25 D GND
24 CB
23 CP
22 MIRR
21 DEFECT
20 TE
19 FE
18 FE BIAS
17 VEE
16 CC I


VOUT1
VOUT2
6
5
7
VCC
3
VCONT
Vref
2
GND
VIN1
1
VIN2
4
pin 6: NC

IC301 LB1630

IC301
LB1630


VIN 1 1
GND 2
VCONT 3
VIN 2 4
8 Vout 1
7 Vcc
6 NC
5 Vout 2

IC- und Transistor-Spannungstabellen für CD-Player
IC and transistor voltage charts for CD player

Pin No. DC	E	C	B
Q201	0.0	9.0	0.6
Q202	0.0	-9.0	0.6
Q401	0.0	5.4	0.0
Q501	5.0	1.3	4.7
Q601	0.0	0.0	0.0
Q702	0.0	0.0	-0.4
Q703	0.0	0.0	-0.4
Q704	0.0	0.0	0.7
Q705	0.0	0.0	0.7
Q902	-5.0	-9.0	-5.7

Pin No. DC	IN	GND	OUT
Q701	0.0	-0.3	0.0
Q706	4.4	4.4	0.0
Q901	9.0	0.0	5.0

Q203

Pin No.	1	2	3	4	5	6	7	8
DC	9.0	0.2	0.0	-0.5	-9.0	0.0	0.0	0.0

IC201

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DC	0.0	0.0	0.0	4.3	4.4	-5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-1.1
Pin No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DC	1.1	-5.0	0.1	0.1	0.0	-4.3	0.0	-3.3	0.0	0.0	2.5	2.4	0.3	5.0	5.0

IC301

Pin No.	1	2	3	4	5	6	7	8
DC	0.0	0.0	0.0	4.3	4.4	-5.0	0.0	0.0

IC401

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DC	0.0	2.2	2.3	5.4	5.0	0.0	4.2	4.2	5.0	5.0	0.5	0.5	0.5	0.0	5.0
Pin No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DC	5.0	5.0	5.0	0.3	5.0	5.0	0.0	0.0	5.0	5.0	0.0	5.0	0.1	4.4	0.0
Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
DC	0.0	0.0	5.0	5.0	5.0	5.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Pin No.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
DC	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Pin No.	61	62	63	64											
DC	3.4	1.8	0.2	5.0											

IC701

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DC	1.9	3.8	0.0	4.4	0.0	2.5	2.5	0.0	2.4	4.4	0.4	0.0	0.0	4.4	0.0
Pin No.	16	17	18	19	20										
DC	0.0	0.0	0.0	0.0	1.9										

IC702

Pin No.	1	2	3	4	5	6	7	8
DC	1.9	1.9	1.9	-5.0	1.9	1.9	1.9	5.0

IC703

Pin No.	1	2	3	4	5	6	7	8
DC	0.0	0.0	0.0	-5.0	0.0	0.0	0.0	5.0

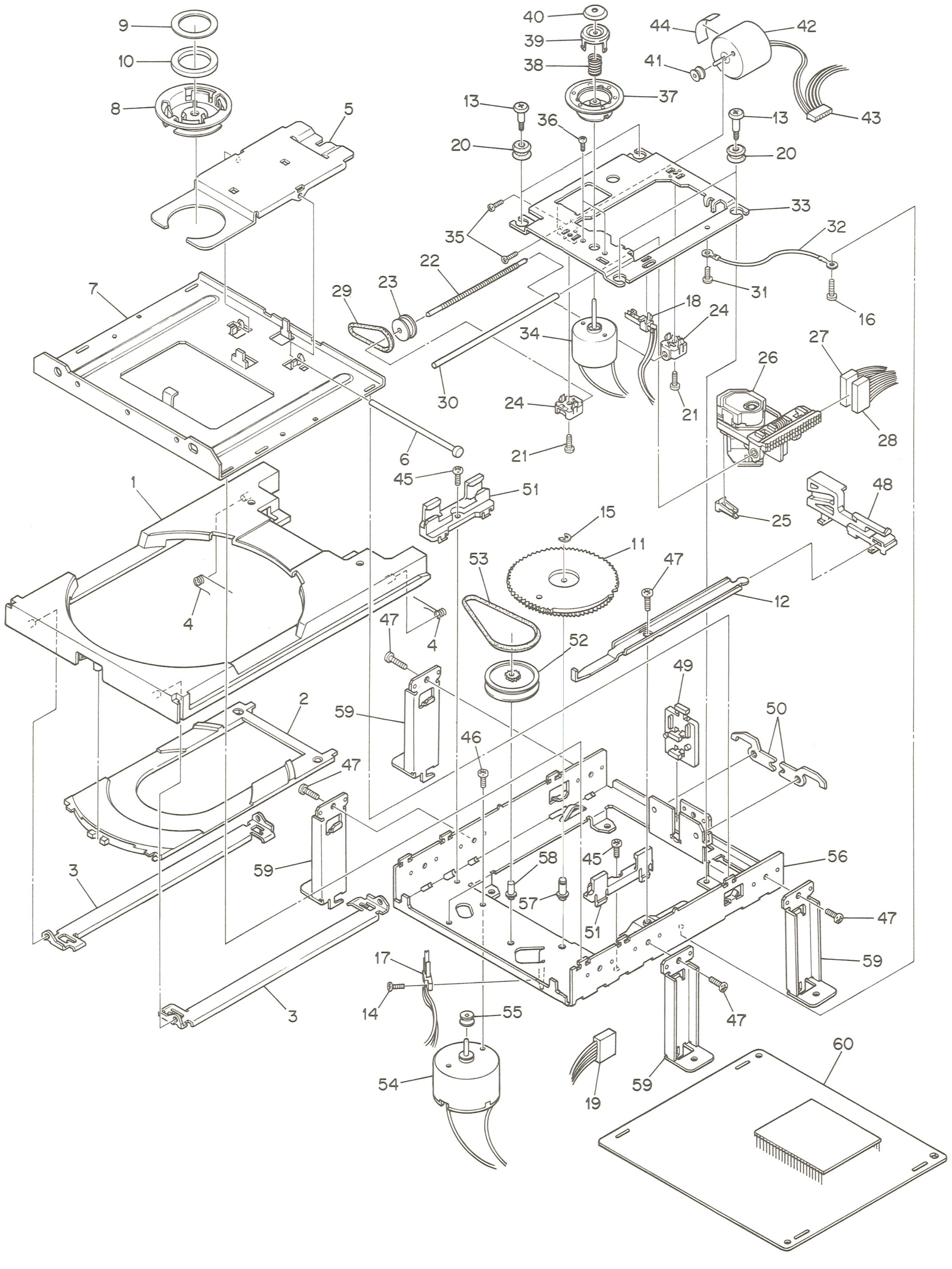
SP001

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DC	0.0	0.0	0.0	0.0	2.4	2.5	0.0	3.5	3.5	2.7	2.7	0.0	5.0	5.0	0.0
Pin No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DC	5.0	5.0	0.1	4.4	0.0	0.4	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
DC	0.0	0.3	5.0	0.5	0.0	0.6	0.0	0.1	0.0	-4.3	-5.0	0.0	0.3	-0.5	0.0
Pin No.	46	47	48	49	50	51	52	53	54						
DC	5.0	5.0	0.0	2.4	2.5	2.4	0.0	2.5	2.5						

Ersatzteilliste CD-Player
Spare parts list CD player

Bestell-Nr./ Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price key
Elektrische Teile/Electrical parts				
46 819 00	CD-Spieler kpl.	CD player assembly	A 22	G 2
46 876 00	CD-Platine	CD P.C.B.	CM 60	F 9
46 877 00	IC-Zusatzplatine J019	IC P.C.B. J019	J019	E 5
46 747 00	IC CXA 1081 S RF Amplifier	IC CXA 1081 S RF Amplifier	IC 201	B 4
46 748 00	IC LB 1630 Motor Driver	IC LB 1630 motor driver	IC 301	B 3
46 878 00	IC CXP 5024 H-076S	IC CXP 5024H-076S	IC 401	D 5
46 501 00	IC LC 7880 = LC 7881	IC LC 7880 = LC 7881	IC 701	B 9
40 765 00	IC BA 4560 o. UPC 4560	IC BA 4560 o. UPC 4560	IC 702/703	A 6
40 767 00	Transistor 2 SD 1762 E	Transistor 2 SD 1762 E	Q 201	A 7
40 766 00	Transistor 2 SB 1185 E	Transistor 2 SB 1185 E	Q 202	A 8
40 768 00	Transistor STA 341 M	Transistor STA 341 M	Q 203	B 4
34 692 00	Transistor 2 SC 1740	Transistor 2 SC 1740	Diverse	A 2
46 752 00	Transistor 2 SA 950 Y	Transistor 2 SA 950 Y	Q 501/902	A 5
40 368 00	Transistor DTA 143 XS	Transistor DTA 143 XS	Q 701/706	A 2
46 751 00	Transistor HA 17805	Transistor HA 17805	Q 901	A 8
24 750 00	Diode 1 SS 133	Diode 1 SS 133	D 501/701	A 2
46 879 00	Zenerdiode HZ 6B1 RE	Zenerdiode HZ 6B1 RE	D 901	A 3
29 622 00	Trimmpoti 20 kOhm	Semi-fixed resistor 20 kOhm	Diverse	A 3
40 769 00	Quarz XTP0334-16934K015 16,9344 MHz	Crystal XTP0334-16934K015 16.9344 MHz	X 601	B 2
46 839 00	Keramik-Oszillator CSA 4,00 MHz	Ceramic resonator CSA 4.00 MHz	X 401	A 7
Mechanische Teile/Mechanical parts				
46 755 00	Schlitten CD-Platte	Tray	DM 1	B 4
46 756 00	Auflagebügel CD-Platte	Lifter	DM 2	B 0
46 869 00	Feder Auflagebügel	Spring lifter	DM 4	A 2
46 757 00	Zentrierscheibe oben	Disk cramper	DM 8	A 3
46 758 00	Kurvenzahnrad Lademechanik	Drive gear	DM 11	A 9
34 315 00	Sicherungsring für Kurvenzahnrad	E-Ring spring	DM 15	A 0
46 759 00	Schaltkontakt	LSC-1223-31 Leaf SW	DM 17	A 9
44 132 00	Mikroschalter MSW L 541 T	Leaf switch MSW L 541 T	DM 18	A 4
46 870 00	Gewindestange Laserschlitten	Lead screw laser	DM 22	B 1
44 121 00	Pulley Gewindestange	Pulley feed	DM 23	A 2
46 871 00	Führungsrolle Gewindestange	S-rack lead screw	DM 25	A 3
46 760 00	Laserabtaster kpl.	Laser pick up	DM 26	F 1
44 116 00	Riemen Lasermotor	Belt laser motor	DM 29	A 3
44 124 00	Gleitstange	Guide shaft	DM 30	A 4
46 761 00	Motor Antrieb CD-Platte	Disk motor	DM 34	C 0
46 762 00	Antriebsteller	Disk table	DM 37	B 0
46 872 00	Feder Antriebsteller	Locater spring	DM 38	A 1
46 763 00	Zentrierscheibe unten	Locater	DM 39	A 3
46 873 00	Kappe Zentrierscheibe	Locater cup	DM 40	A 3
44 115 00	Motorpulley Laser	Motorpulley laser	DM 41	A 1
44 117 00	Motor Laser	Motor laser	DM 42	B 6
46 874 00	Gleithebel Kippmechanik	Slide lever cam	DM 48	A 7
46 875 00	Druckhebel Kippmechanik	Lever push	DM 49	A 5
46 764 00	Zwischenrad/Lademechanik	Idle gear C	DM 52	A 3
46 765 00	Riemen Lademotor	Belt	DM 53	A 4
40 752 00	Motor Schlitten	Motor tray	DM 54	B 9
46 766 00	Pully Lademotor	Motor pulley	DM 55	A 2

Explosionsdarstellung CD-Mechanik Queens 160/Queens 200
Exploded view CD mechanism
Explo-Index: CD



Abgleichanweisung CD-Spieler

Benötigte Meßgeräte: Frequenzzähler
Test-CD
Oszilloskop

Alignment procedure CD player

Instruments required: Frequency counter
Test disc
Oscilloscope

VCO-Frequenzabgleich

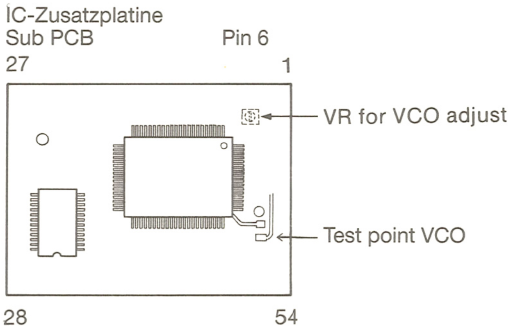
Dieser Abgleich kann ohne CD-Platte durchgeführt werden.

1. Frequenzzähler an Testpunkt VCO und Masse anschließen.
2. Pin 6 der IC-Zusatzplatine mit Masse TJ 901 verbinden.
3. Gerät einschalten.
4. Mit Poti VR auf der IC-Zusatzplatine Frequenz auf 4,3218 ±0,01 MHz abgleichen.
5. Kurzschlußbrücke an Pin 6 der IC-Zusatzplatine wieder entfernen.

VCO frequency adjustment

This VCO frequency adjustment does not need a CD disc.

1. Connect the frequency counter to test point (VCO) and to ground (TJ 901).
2. Connect the Sub P.C.B. 6th pin to GND wire.
3. Set the unit power on.
4. Adjust VR in Sub P.C.B. the frequency to 4.3218 ±0.01 MHz.
5. Resolder (Pin 6 in Sub P.C.B. and GND).



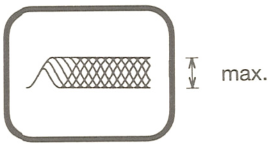
EF-Balance und Focus-Offset-Abgleich

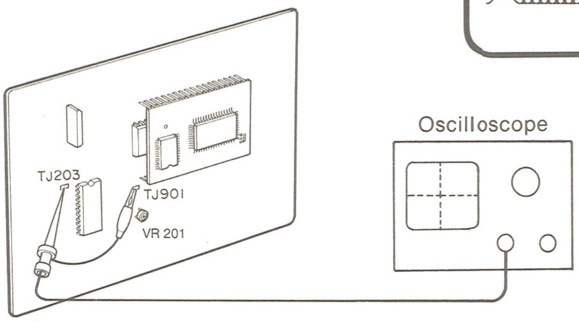
1. CD-Platte einlegen und »PLAY«-Taste drücken.
2. Oszilloskop an Testpunkt TJ 203 und Masse TJ 901 anschließen.
3. HF-Signal mit VR 201 und VR 301 auf Maximum abgleichen.

EF-Balance and Focus-Offset adjustment

1. Load a disc and play back.
2. Connect an oscilloscope to the test points TJ 203 and ground (TJ 901).
3. Adjust VR 201 and VR 301 so that the HF-Signal becomes maximum.

The screen of oscilloscope





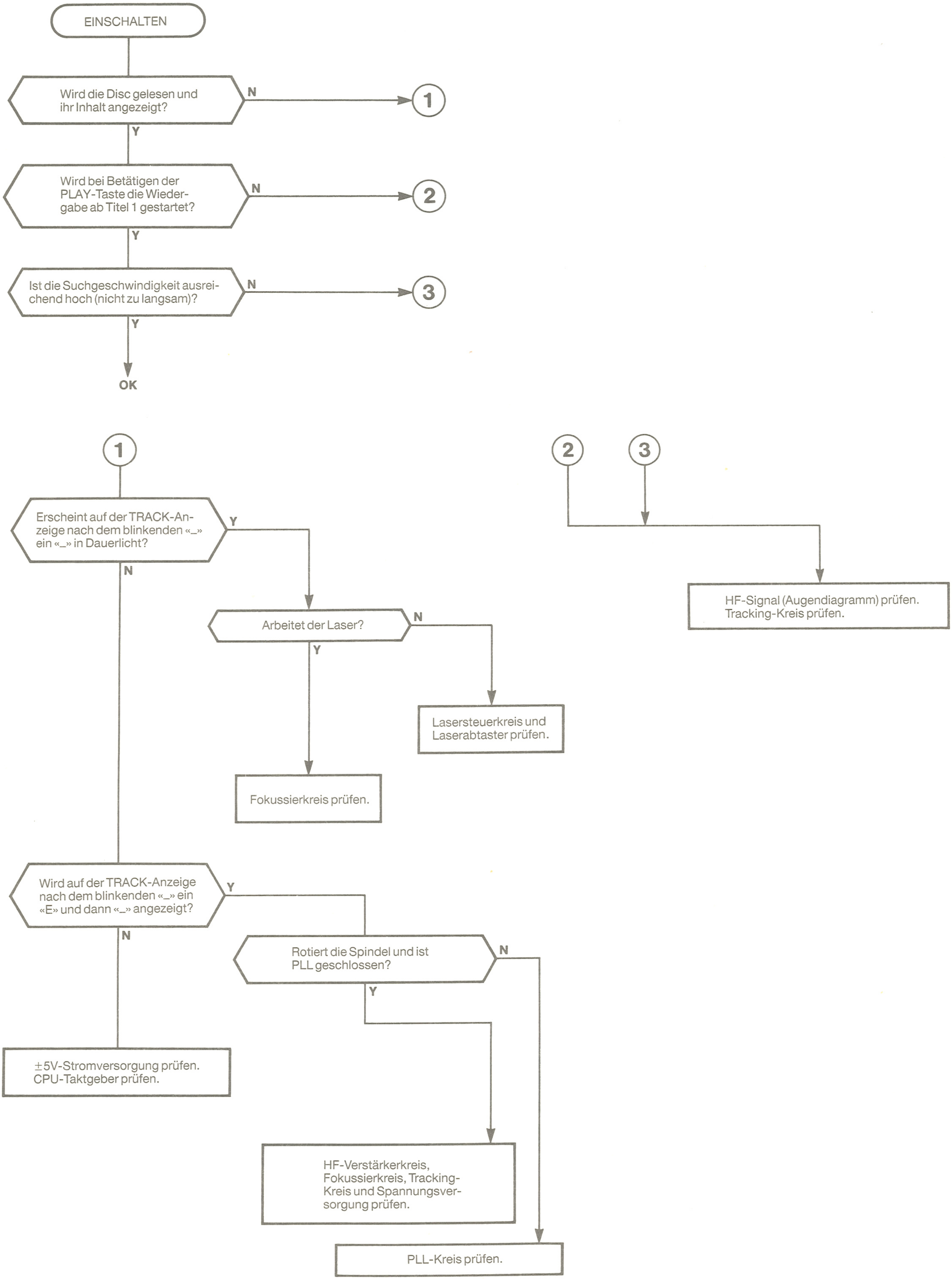
Fokus-Servo-Verstärkung

(Einstellung von Fokus- und Spurführungsverstärkung)
Für genauen Abgleich ist ein Servo-Analysator erforderlich. Jedoch besteht bei Normalbetrieb auch dann keine Schwierigkeit, wenn eine geringe Abweichung von den zulässigen Werten auftritt, da die Verstärkung in einem gewissen Bereich variieren kann. Deswegen sollte dieser Abgleich nicht ausgeführt werden.
Mit der Fokus- und Spurführungsverstärkung werden Nachführeigenschaften des Abtasters bei mechanischen Erschütterungen und Stößen während des Betriebs beeinflußt.

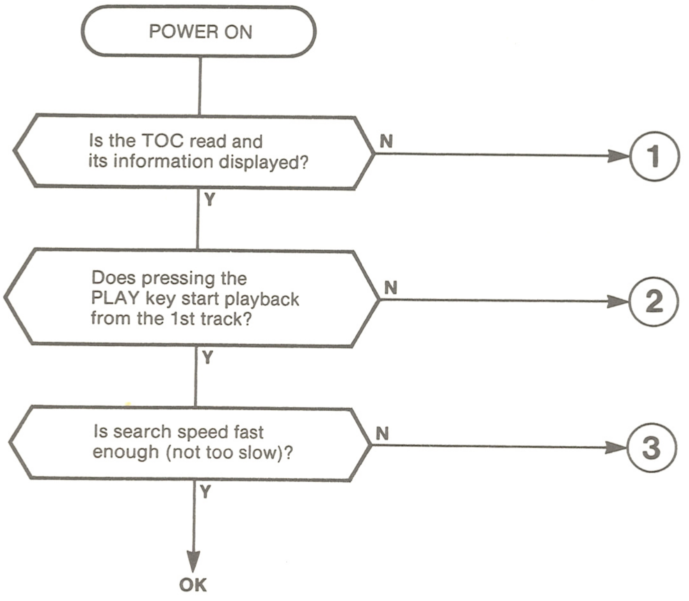
Focus servo gain adjustment

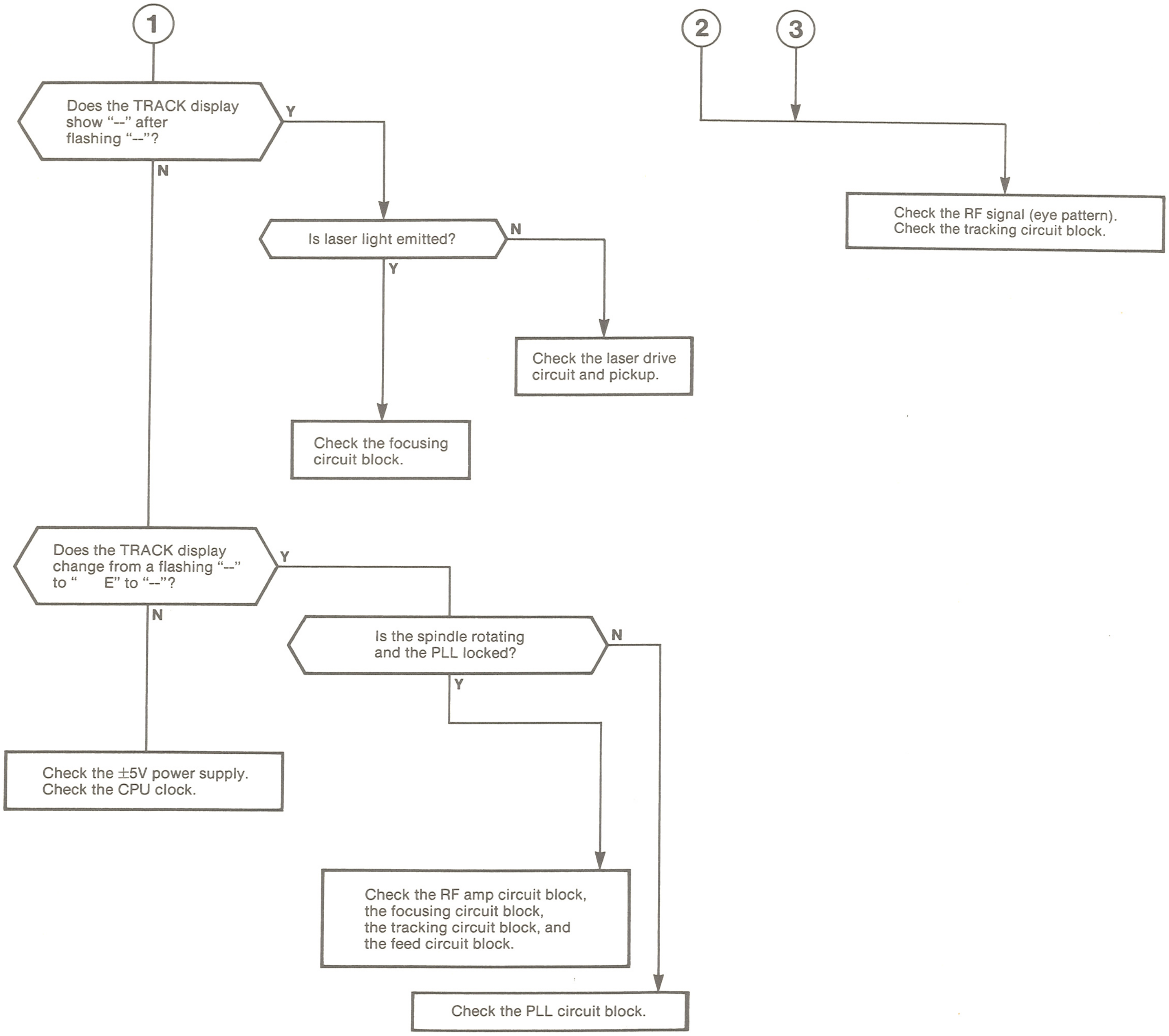
(Focus/Tracking-Gain adjustment)
A servo-analyzer is required for accurate adjustment.
However, there will be no problem in normal operation even in case of a minor drift from precise adjustment because the gain has an allowable margin.
Therefore, do not apply this adjustment.
The Focus/Tracking-gain determines the tracking property of the pickup against the mechanical noise and mechanical shock during the operation.

Fehlersuchdiagramm CD-Player


EINSCHALTEN
Wird die Disc gelesen und ihr Inhalt angezeigt?
N
Y
1
Wird bei Betätigen der PLAY-Taste die Wiedergabe ab Titel 1 gestartet?
N
Y
2
Ist die Suchgeschwindigkeit ausreichend hoch (nicht zu langsam)?
N
Y
3
OK
1
Erscheint auf der TRACK-Anzeige nach dem blinkenden «_» ein «_» in Dauerlicht?
Y
N
Arbeitet der Laser?
N
Y
Lasersteuerkreis und Laserabtaster prüfen.
Fokussierkreis prüfen.
Wird auf der TRACK-Anzeige nach dem blinkenden «_» ein «E» und dann «_» angezeigt?
Y
N
Rotiert die Spindel und ist PLL geschlossen?
N
Y
±5V-Stromversorgung prüfen. CPU-Taktgeber prüfen.
HF-Verstärkerkreis, Fokussierkreis, Tracking-Kreis und Spannungsversorgung prüfen.
PLL-Kreis prüfen.
2
3
HF-Signal (Augendiagramm) prüfen. Tracking-Kreis prüfen.

Troubleshooting Flowchart CD player

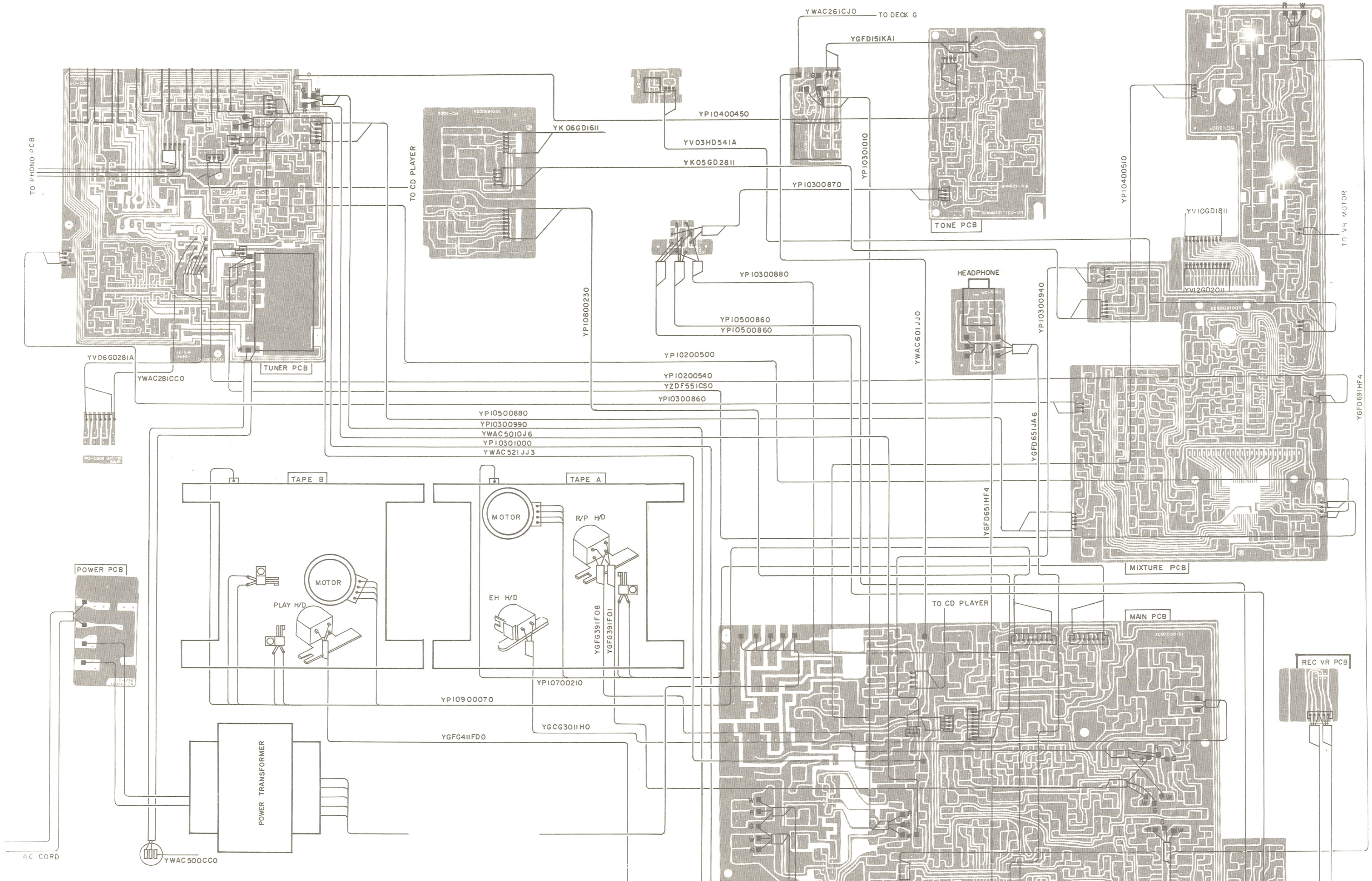

POWER ON
Is the TOC read and its information displayed?
N
1
Y
Does pressing the PLAY key start playback from the 1st track?
N
2
Y
Is search speed fast enough (not too slow)?
N
3
Y
OK


1
Does the TRACK display show “--” after flashing “--”?
Y
N
Is laser light emitted?
N
Y
Check the laser drive circuit and pickup.
Check the focusing circuit block.
Does the TRACK display change from a flashing “--” to “ E” to “--”?
Y
N
Is the spindle rotating and the PLL locked?
N
Y
Check the ±5V power supply.
Check the CPU clock.
Check the RF amp circuit block, the focusing circuit block, the tracking circuit block, and the feed circuit block.
Check the PLL circuit block.
2
3
Check the RF signal (eye pattern).
Check the tracking circuit block.

Ersatzteilliste elektrisch Queens 200 (ohne CD)
Spare parts list electrical Queens 200 (without CD player)

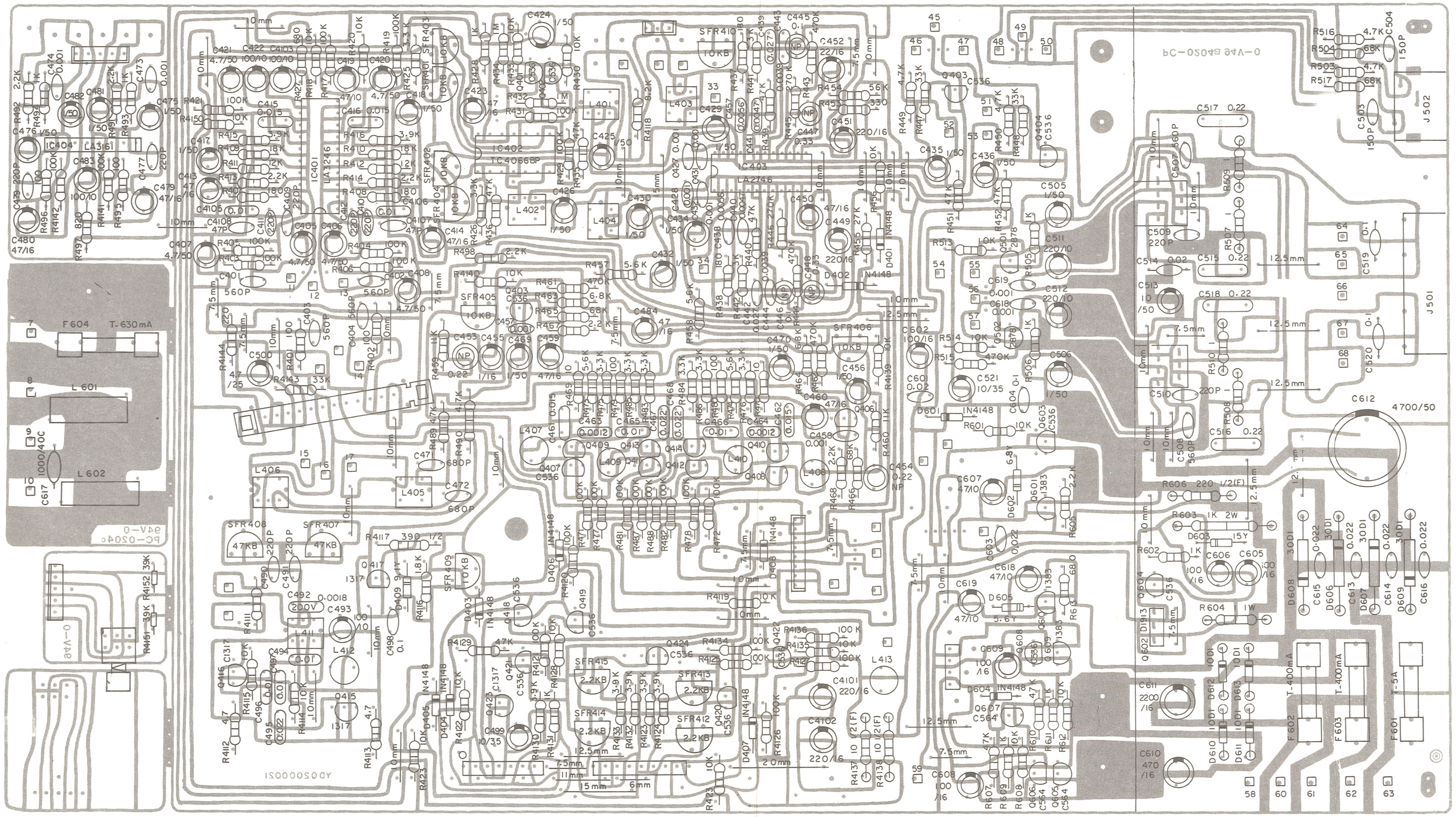
Bestell-Nr./ Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price key
48 009 00	Tunerplatine	Tuner P.C.B.		F 3
48 010 00	Hauptplatine	Main P.C.B.		F 7
48 011 00	Displayplatine	Display P.C.B.		F 8
48 013 00	Klangreglerplatine	Tone P.C.B.		C 9
48 012 00	Schalterplatine CD Tape	Control P.C.B. CD Tape		C 8
46 850 00	Phono-Vorverstärker-Platine	Pre-amplifier phono		C 3
48 002 00	IC LA 1265	IC LA 1265	IC 1	B 7
13 558 00	IC LB 1416	IC LB 1416	IC 405	B 5
46 829 00	IC LB 1641	IC LB 1641	IC 303	B 2
31 481 00	IC UPD 1708 AG-728-00	IC UPD 1708 AG-728-00	IC 201	D 2
38 286 00	IC TDA 2025	IC TDA 2025	IC 501/502	B 7
32 997 00	IC LA 3161	IC LA 3161	IC 404/901	B 0
37 730 00	IC LA 2746	IC LA 2746	IC 403	C 3
40 799 00	IC LA 3246	IC LA 3246	IC 401	B 2
21 596 00	IC LA 3361	IC LA 3361	IC 2	B 1
26 131 00	IC TC 4013 BP	IC TC 4013 BP	IC 302	A 8
32 998 00	IC TC 4066 BP	IC TC 4066 BP	IC 402	B 0
46 830 00	IC LC 6546C – 4059	IC LC 6546C – 4059	IC 301	C 4
21 736 00	Transistor 2 SC 1815 GR	Transistor 2 SC 1815 GR	Diverse	A 3
12 036 00	Transistor 2 SA 564 Q	Transistor 2 SA 564 Q	Diverse	A 8
37 957 00	Transistor 2 SA 1177 E	Transistor 2 SA 1177 E	Q 1	A 3
13 545 00	Transistor 2 SC 536 NP-F	Transistor 2 SC 536 NP-F	Diverse	A 3
08 012 00	Transistor 2 SC 1317	Transistor 2 SC 1317	Diverse	A 5
03 713 00	Transistor 2 SC 1383 Q	Transistor 2 SC 1383 Q	Q 601/609	A 7
24 533 00	Transistor 2 SC 2634 S	Transistor 2 SC 2634 S	Diverse	A 3
44 096 00	Transistor 2 SB 544 E/F	Transistor 2 SB 544 E/F	Q 605	A 5
34 691 00	Transistor 2 SC 2878	Transistor 2 SC 2878	Q 501/502	A 3
44 764 00	Transistor 2 SD 1913 R	Transistor 2 SD 1913 R	Q 602	A 1
11 241 00	Diode 1 N 4148	Diode 1 N 4148	Diverse	A 2
40 288 00	Diode KV 1236 Z 2	Diode KV 1236 Z 2	D 1	B 7
12 039 00	Diode 10 D 1 SIL.	Diode 10 D 1 SIL.	Diverse	A 4
26 552 00	Diode 30 D-1 FC	Diode 30 D-1 FC	D 604-607	A 4
23 214 00	Zenerdiode GZA 9,1 Y	Zenerdiode GZA 9.1 Y	D 409	A 1
21 413 00	Zenerdiode GZA 15 Z	Zenerdiode GZA 15 Z	D 603	A 2
21 350 00	Zenerdiode GZA 6,2 X oder Y	Zenerdiode GZA 6.2 X or Y	D 207/304	A 3
21 745 00	Zenerdiode GZA 6,8 Y	Zenerdiode GZA 6.8 Y	D 602	A 3
21 352 00	Zenerdiode GZA 5,6 Y	Zenerdiode GZA 5.6 Y	D 605	A 3
29 597 00	Leuchtdiode SLR-34VR5 (rot)	LED SLR-34VR5 (red)	X 402/410	A 4
32 768 00	Leuchtdiode SLR-34 DU5 (orange)	LED SLR-34 DU5 (orange)	X 403-409	A 4
37 414 00	Leuchtdiode SEL 2310 S GN (grün)	LED SEL 2310 S GN (green)	X 401	A 2
12 110 00	Filter-Keramik 10.7-B	Ceramic Filter 10.7-B	F 1, 2	A 6
48 003 00	Filter-Keramik BFU 455 CN 4	Ceramic Filter BFU 455 CN 4	F 4	A 8
46 831 00	Ferritantenne LW/MW	Bar antenna coil LW/MW	L 2	B 4
37 784 00	Spule 100 µH	Coil 100 µH	L 412/413	A 4
37 783 00	Spule 3,9 mH	Coil 3.9 mH	L 409/410	A 4
37 782 00	Spule 6,8 mH	Coil 6.8 mH	L 407/408	A 4
34 320 00	Drossel 100 µH	Choke coil 100 µH	L 1, 5	A 3
45 992 00	Keramik-Filter SFZ 455	AM Ceramic Filter	F 3	B 0
24 372 00	Spule AM	Filter Coil	L 6	A 6
34 322 00	Spule AM	AM IFT Coil	IF 2	A 4
34 324 00	Spule Netzleitung	Air Coil	L 601/602	A 1
40 291 00	Spule MW-Oszillator LB 0541	MW oscillator coil	L 4	A 3
48 004 00	Spule, Löschoszillator	Tape oscillator coil	L 411	A 7
45 991 00	Spule LW-Oszillator	LW oscillator coil	L 3	A 4
48 005 00	Oszillator	Oscillator coil	L 401-406	A 7
40 295 00	Filter MPX	Filter MPX	L 7/8	B 0
31 482 00	Quarz 4,5 MHz	X'tal 4.5 MHz	X 201	A 8
46 839 00	Keramik-Oszillator CSA 4,00 MHz	Ceramic resonator CSA 4.00 MHz	X 301	A 7
46 834 00	Drehwiderstand 100k Balance	Rotary VR 100k Balance	VR 803	B 1
46 835 00	Drehwiderstand 100k Klang	Rotary VR 100k Tone	VR 801/802	B 2
46 836 00	Motor-Drehwiderstand 100k Volumen	Rotary VR with motor 100k Volume	VR 501	D 0
48 006 00	Drehwiderstand 10k Aussteuerung	Rotary VR 10k record level	VR 401	C 0
37 022 00	Trimmpoti 1k	Semi-fixed resistor 1k	SFR 4	A 4
37 444 00	Trimmpoti 2,2k	Semi-fixed resistor 2.2k	Diverse	A 3
37 443 00	Trimmpoti 10k	Semi-fixed resistor 10k	Diverse	A 3
32 587 00	Trimmpoti 22k	Semi-fixed resistor 22k	SFR 1	A 4
37 441 00	Trimmpoti 4,7k	Semi-fixed resistor 4.7k	SFR 411	A 3
34 538 00	Trimmpoti 47k	Semi-fixed resistor 47k	SFR 2	A 2
18 576 00	Sicherungswiderstand 1 Ohm/¼ W	Fuse resistor 1 Ohm/¼ W	R 507-510	A 2
46 479 00	Sicherungswiderstand 10 Ohm/½ W	Fuse resistor 10 Ohm/½ W	R 4137/4138	A 1
32 072 00	Sicherungswiderstand 22 Ohm/½ W	Fuse resistor 22 Ohm/½ W	R 321	A 3
34 335 00	Sicherungswiderstand 39 Ohm/½ W	Fuse resistor 39 Ohm/½ W	R 918	A 1
31 823 00	Sicherungswiderstand 220 Ohm/½ W	Fuse resistor 220 Ohm/½ W	R 606	A 7
40 296 00	Sicherungswiderstand 1 Ohm/1 W	Fuse resistor 1 Ohm/1 W	R 604	A 3
44 086 00	Trimmer Kondensator VTC 51A 144A 6pF	Trimmer capacitor 6pF	CT 2	A 4
24 377 00	Trimmer Kondensator VTC 51F 133A 30pF	Trimmer capacitor 30 pF	CT 1	A 3
46 837 00	Display Tuner LTP6M9011A	Display Tuner LTP6M9011A	LCD 201	C 7
46 838 00	Display CD LTP4R2011A	Display CD LTP4R2011A	LCD 701	C 6
40 306 00	Tuner FE 407/ET-A036	Tuner FE 407/ET-A036		D 6
46 840 00	Lämpchen 15V 30mA	Pilot lamp 15V/30mA		A 4
48 007 00	IR-Empfänger Queens 200	IR-Receiver Queens 200		C 2
48 008 00	Netztrafo	Power transformer		D 7
40 305 00	Microschalter Bandsorte	Leaf switch tape select		A 6
34 545 00	Tipptaste	Tact switch	Diverse	A 3
34 033 00	A/W-Schiebeschalter	Rec/PB switch	S 401 a-d	A 8
44 089 00	Netzschalter	Power switch	SW 301	B 0
29 747 00	Tastenschalter	Push switch	SW 402-404	B 1
46 832 00	Tastensatz 7fach Funktion	Function switch	SW 1-8	C 6
34 034 00	Mikrofonbuchse	Microphone jack	J 401	B 3
46 842 00	Buchse Kopfhörer	Headphone jack	J 502	B 0
24 358 00	Buchse Antenne	Antenna jack		A 6
34 338 00	Buchse Lautsprecher (Doppel)	Speaker DIN jack	J 501	A 7
32 952 00	Buchse Chinch CD	2-Pin RCA jack		A 6

Verdrahtungsplan Queens 200
Wiring diagram Queens 200


YWAC261CJ0
TO DECK G
YGFD151KA1
YP10400450
YK06GD1611
YV03HD541A
YK05GD2811
YP10300870
YP10301010
TO PHONO PCB
TO CD PLAYER
YP10400510
YV10GD1811
TO VR MOTOR
YV12GD2011
TONE PCB
HEADPHONE
YP10300880
YP10500860
YP10500860
YP10800230
YWAC601JJ0
YP10300940
YP10200500
YP10200540
YZDF551CS0
YP10300860
YV06GD281A
YWAC281CC0
TUNER PCB
YP10500880
YP10300990
YWAC501OJ6
YP10301000
YWAC521JJ3
YGFD651JA6
YGFD691HF4
YGFD651HF4
TAPE B
TAPE A
MOTOR
R/P H/D
MOTOR
PLAY H/D
EH H/D
MIXTURE PCB
POWER PCB
TO CD PLAYER
MAIN PCB
REC VR PCB
YGFG391F08
YGFG391F01
YP10700210
YP10900070
YGCG3011H0
YGFG411FD0
POWER TRANSFORMER
AC CORD
YWAC500CC0
YP10500870
YP10500870

Hauptplatine Queens 200
Main P.C.B. Queens 200

Bestückungsseite
Top view


IC401
IC402
IC403
IC404
LA3246
LA3161
TC4066BP
LA2146
SFR402
SFR403
SFR404
SFR405
SFR406
SFR407
SFR408
SFR409
SFR410
SFR413
SFR414
SFR415
L401
L402
L403
L404
L405
L406
L407
L408
L409
L410
L411
L412
L413
L601
L602
F601
F602
F603
F604
T-630mA
T-400mA
T-5A
C612
4700/50
C610
470/16
C611
2200/16
J501
J502
R606 220 1/2(F)
R603 1K 2W
R604 1W
D603 15Y
1000/40C
C617
PC-0204c
94V-0
YD0200001
7
8
9
10
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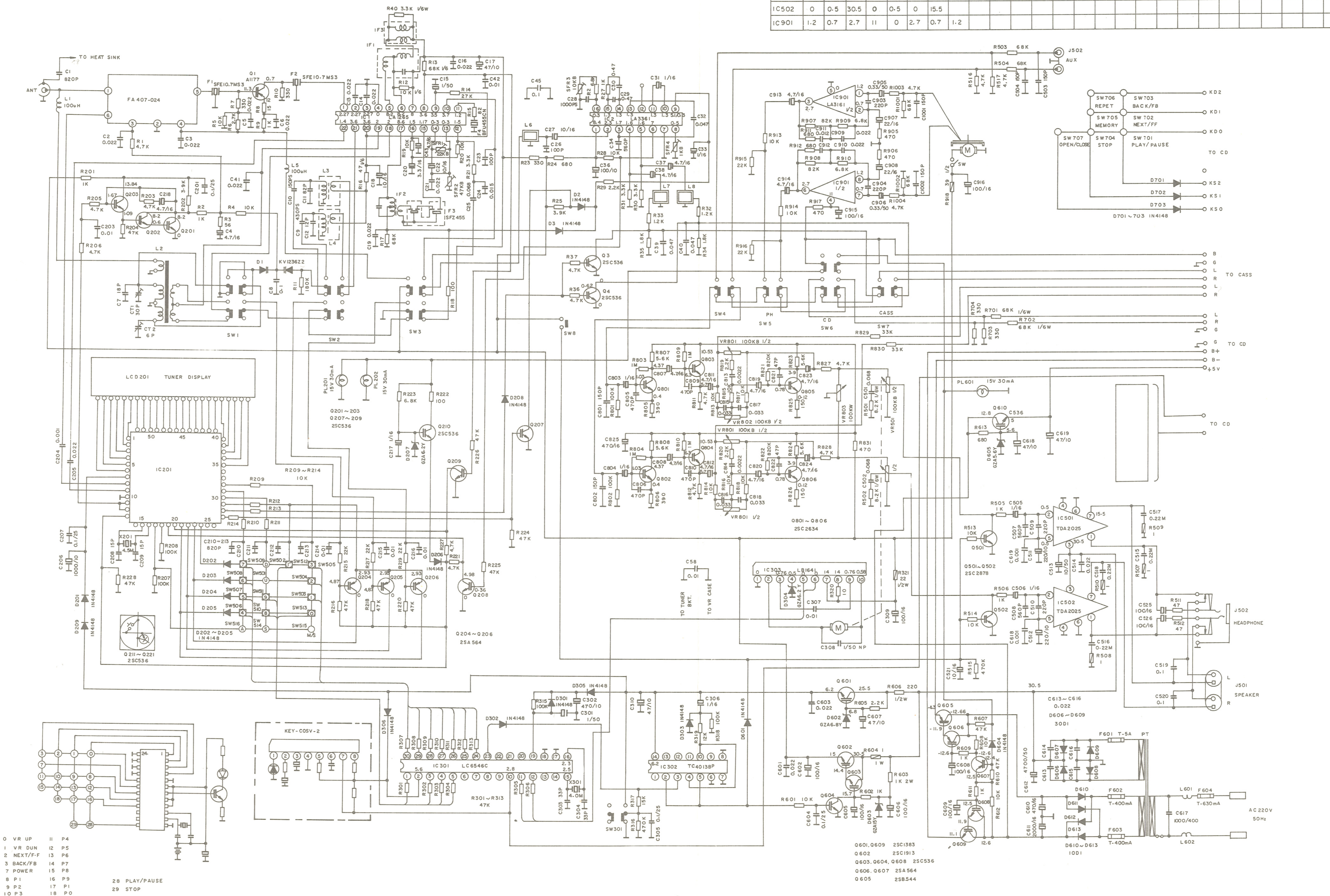
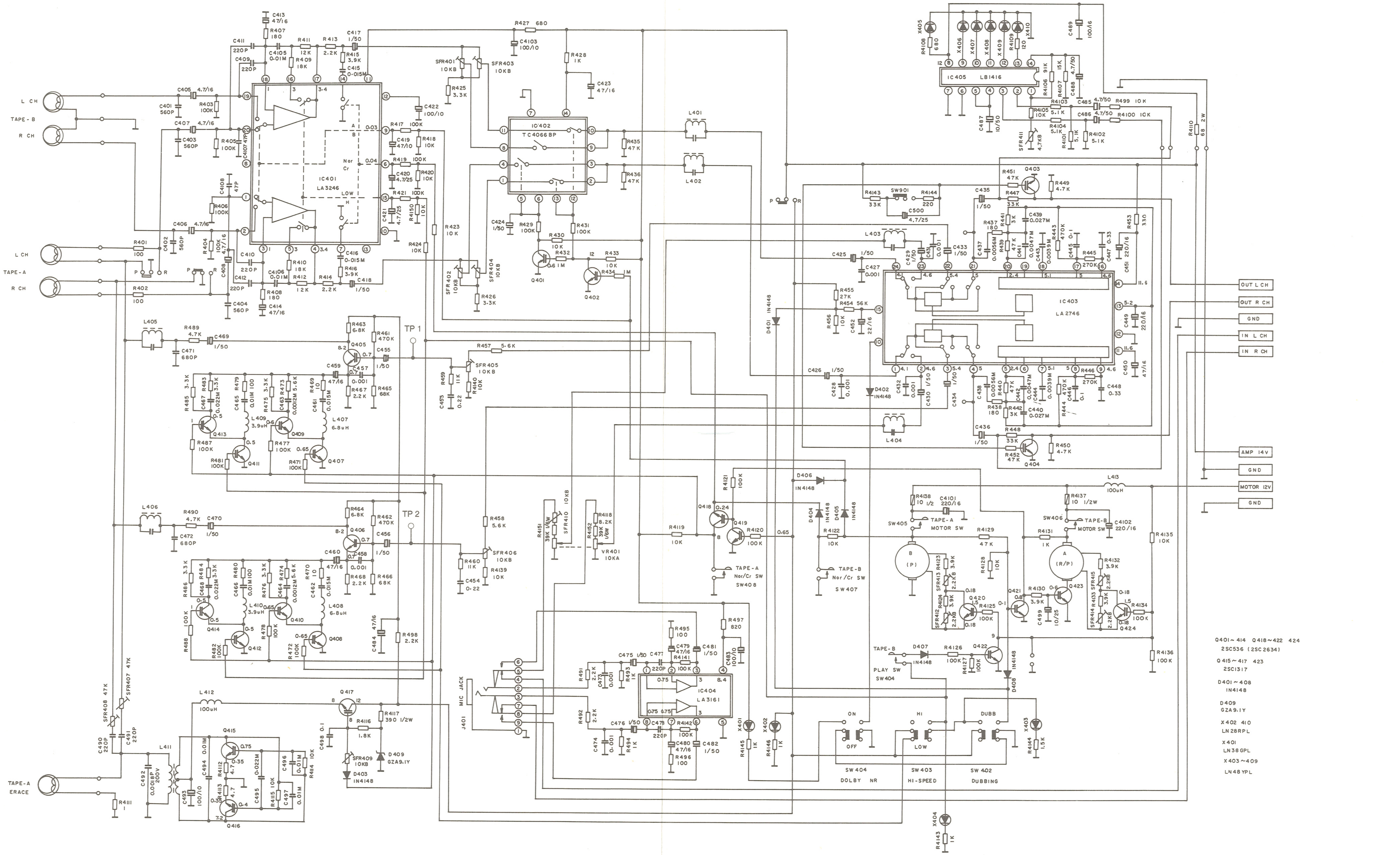
Schaltbild Receiver Queens 200
Circuit diagram receiver Queens 200

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
IC 1	2.27	2.27	2.27	0	8.2	8.2	8	3.6	3.5	3.1	1.2	1.5	0.3	0.3	1.17	1.5	8.6	2	2	3.6	3.6	1.4								
IC 2	0	2.3	1.7	1.6	1.6	7	0	0.5	5.1/0.3	1.3	1.3	0	1.3	1.3	1.3	0.8														
IC 301	0	5.6	0	0	0	0	0	0	0	0	0	0	0	0	2.5	2.3	0	0	0	0	0.	0	0	0	0	0	0	0	0	0
IC302	0	0	0	0	0	0	0	0	0	0	0	0	0	6.2																
IC303	0	0.58	0.76	0.5	0	0	14	14	0.76	0.58																				
IC401	0	0	1	3.4	3	0.04	0	0	0.03	0	0	0	0	0	0	3	3.4	1	0	0										
IC403	4.1	4.6	5.4	5	2.4	0	5.1	5	4.6	0	11.6	0	5.2	11.6	0	4.6	5	5.1	0	2.4	5	5.4	4.6	4.1						
IC404	0	0.75	3	8.4	0	3	0.75	0.75																						
IC405	0	0	0	0	0	0	0	12	0	0	0	0	0	0																
IC501	0	0.5	30.5	0	0.5	0	15.5																							
IC502	0	0.5	30.5	0	0.5	0	15.5																							
IC901	1.2	0.7	2.7	11	0	2.7	0.7	1.2																						


TO HEAT SINK
ANT
C1 820P
L1 100uH
FA 407-024
F1 SFE10.7MS3
Q1 A1177
F2 SFE10-7MS3
R40 3.3K 1/6W
IF1
IF2
IF3
LA1265
LA3361
SFR1
SFR2
SFR3
SFR4
L6
L7
L8
Q3 2SC536
Q4 2SC536
D2 IN4148
D3 IN4148
KV1236Z2
SW1
SW2
SW3
SW8
SW4
PH SW5
CD SW6
CASS SW7
LA3161
IC901 1/2
J502 AUX
R503 68K
R504 68K
SW706 REPET
SW705 MEMORY
SW707 OPEN/CLOSE
SW704 STOP
SW703 BACK/FB
SW702 NEXT/FF
SW701 PLAY/PAUSE
KD2
KD1
KD0
TO CD
D701
D702
D703
KS2
KS1
KS0
D701~703 IN4148
B
G
L
R
TO CASS
R701 68K 1/6W
R702 68K 1/6W
R829 33K
R830 33K
B+
B−
+5V
LCD201 TUNER DISPLAY
IC201
R209~R214 10K
PL201 15V 30mA
PL202 15V 30mA
Q201~203
Q207~209
2SC536
Q210 2SC536
D207 GZA6.2Y
D208 IN4148
Q207
Q209
VR801 100KB 1/2
VR802 100KB 1/2
Q801~Q806
2SC2634
PL601 15V 30mA
Q610
D605 GZA5.6Y
IC501 TDA2025
IC502 TDA2025
Q501~Q502
2SC2878
J502 HEADPHONE
J501 SPEAKER
X201 4.5M
D202~D205
IN4148
SW505
SW506
SW507
SW508
SW509
SW510
SW511
SW512
SW513
SW514
SW515
SW516
Q204~Q206
2SA564
Q211~Q221
2SC536
D201 IN4148
D209 IN4148
C58 0.01
TO TUNER BKT.
TO VR CASE
IC303
LB1641
D304 GZA6.2Y
IC301 LC6546C
IC302 TC4013BP
R301~R313 47K
X301 4.0M
SW301
D301 IN4148
D302 IN4148
D303 IN4148
D305 IN4148
D306 IN4148
D601 IN4148
D602 GZA6.8Y
D603 GZA15Y
D604 IN4148
KEY-C05V-2
Q601
Q602
Q603
Q604
Q605
Q606
Q607
Q608
Q609
C613~C616 0.022
D606~D609 30D1
D610~D613 10D1
F601 T-5A
F602 T-400mA
F603 T-400mA
F604 T-630mA
PT
L601
L602
AC220V 50Hz
Q601,Q609 2SC1383
Q602 2SC1913
Q603,Q604,Q608 2SC536
Q606,Q607 2SA564
Q605 2SB544
0 VR UP
1 VR DUN
2 NEXT/F·F
3 BACK/FB
7 POWER
8 P1
9 P2
10 P3
11 P4
12 P5
13 P6
14 P7
15 P8
16 P9
17 P1
18 P0
28 PLAY/PAUSE
29 STOP

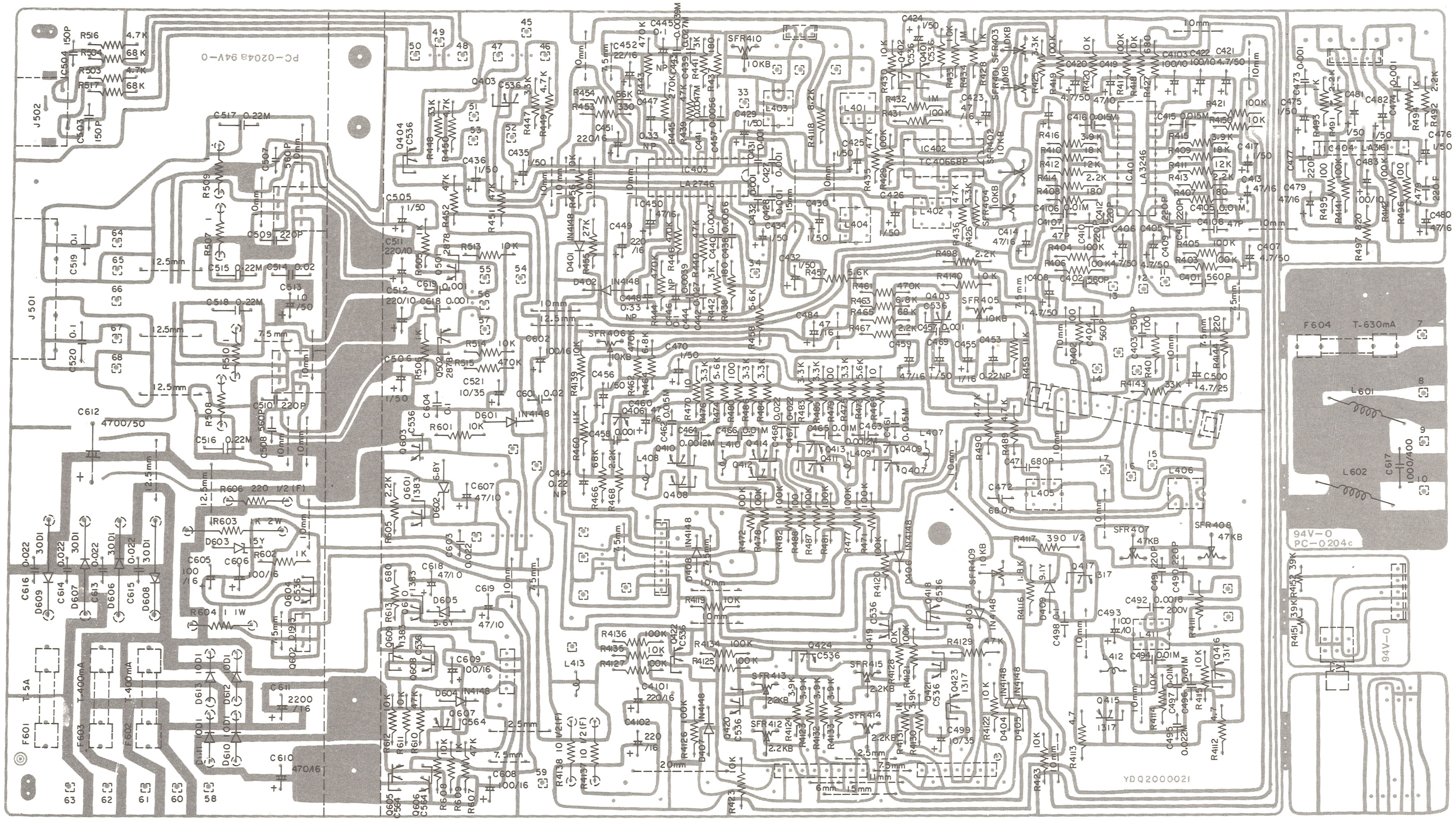
PIN NO.	E	C	B
Q 1	12	0.7	11.3
Q4	0	0	0.62
Q201	0	8.2	0.6
Q202	0.6	8.2	1.09
Q203	1.09	13.84	1.67
Q204	2.93	0	4.87
Q205	2.93	0	4.87
Q206	2.93	0	4.87
Q207	0	0	0.68
Q208	0	4.98	0.36
Q401	0	0	0.6
Q402	0	12	0
Q405	0.7	8.2	0.7
Q407	0	0	0.65
Q408	0	0	0.65
Q409	0	0	0.6
Q410	0	0	0.65
Q412	0	0.5	0
Q413	0	0.5	1
Q414	0.5	0.5	1
Q415	0.35	0	0.75
Q416	0.35	7.2	0.4
Q417	8	12	8
Q418	0.24	8	0
Q419	0	0	0.65
Q420	0.18	0.18	1.5
Q421	0	0.8	0.1
Q422	0	9	0
Q424	0.18	0.18	1.5
Q604	0	15.7	0
Q605	-11.3	-12.66	-11.9
Q606	-11.9	-12.6	-12.6
Q607	12.5	-12.6	12.4
Q608	11.9	12.6	12.5
Q609	11.1	12.6	11.9
Q801	0.4	4.37	1.03
Q802	0.4	4.35	1.04
Q803	5.7	10.53	6.3
Q804	5.7	10.53	6.3
Q805	0.12	3.9	0.78
Q806	0.12	3.9	0.78
Q601	6.2	25.5	6.8
Q602	15	30.5	14.4
Q610	5	12.8	5.6

Schaltbild Recorder Queens 200
Circuit diagram cassette Queens 200


L CH
TAPE-B
R CH
L CH
TAPE-A
R CH
TAPE-A
ERACE
IC401
LA3246
IC402
TC4066BP
IC403
LA2746
IC404
LA3161
IC405
LB1416
TP 1
TP 2
MIC JACK
J401
OUT L CH
OUT R CH
GND
IN L CH
IN R CH
AMP 14V
GND
MOTOR 12V
GND
SW901
SW405
TAPE-A
MOTOR SW
SW406
TAPE-B
MOTOR SW
TAPE-A
Nor/Cr SW
SW408
TAPE-B
Nor/Cr SW
SW407
TAPE-B
PLAY SW
SW404
ON
OFF
SW404
DOLBY NR
HI
LOW
SW403
HI-SPEED
DUBB
SW402
DUBBING
B
(P)
A
(R/P)
Q401~414 Q418~422 424
2SC536 (2SC2634)
Q415~417 423
2SC1317
D401~408
1N4148
D409
GZA9.1Y
X402 410
LN28RPL
X401
LN38GPL
X403~409
LN48YPL

Hauptplatine Queens 200
Main P.C.B. Queens 200

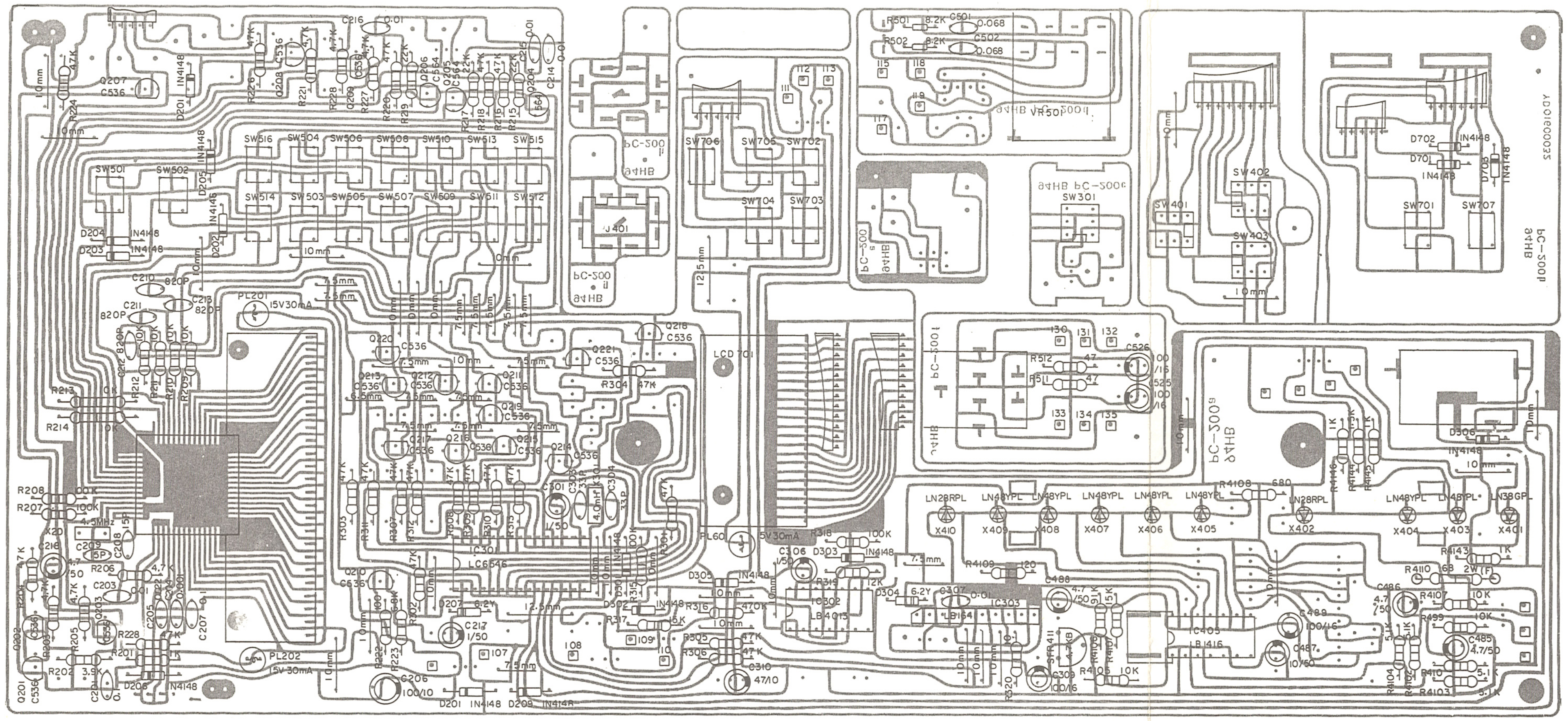
Leiterbahnseite
Bottom view



PC-0204a 94V-0
94V-0
PC-0204c
YDQ2000021
F604 T-630mA
L601
L602
C617 100/400
LA2746
IC402 TC4066BP
LA3246
LA3161
J501
J502
C612 4700/50
F601 T-5A
F603 T-400mA
F602 T-400mA
C610 470/16
C611 2200/16

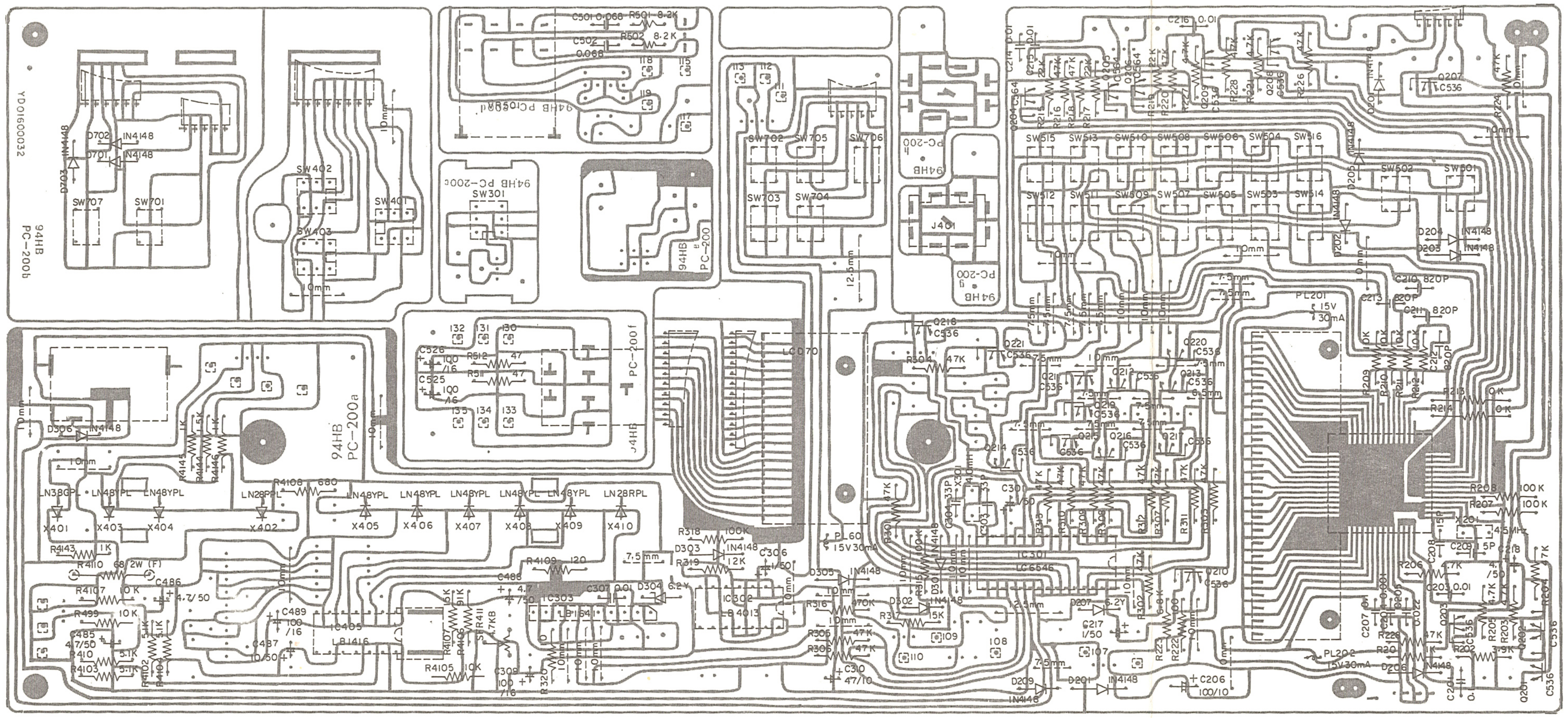
Displayplatine/Schalterplatinen CD–Tape, Queens 200
Display P.C.B./Switch P.C.B.'s CD–Tape, Queens 200

Bestückungsseite
Top view



LCD 701
PL201 15V30mA
PL202 15V30mA
J401
SW301
YD01600035
94HB PC-200

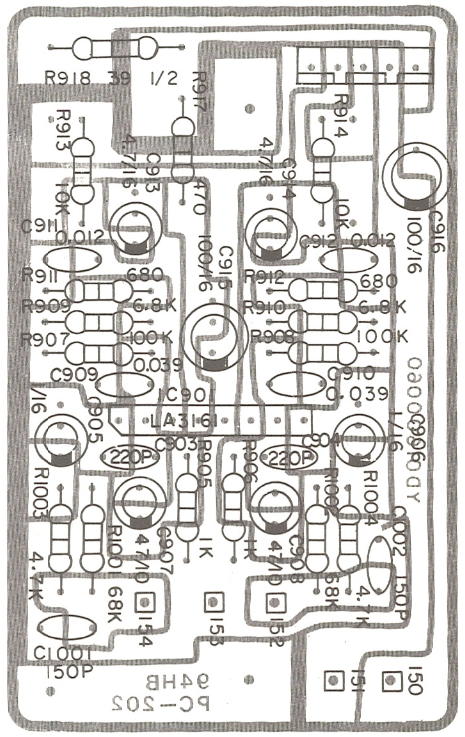
Leiterbahnseite
Bottom view



LCD 701
PL201 15V 30mA
PL202 15V30mA
J401
SW301
YD01600032
94HB PC-200a

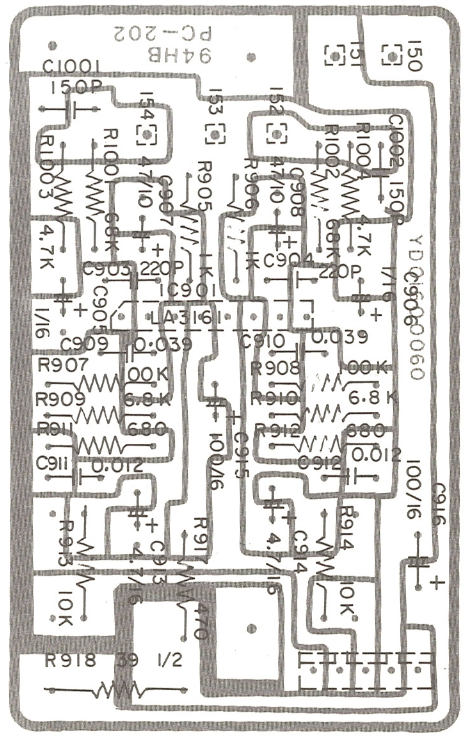
Phono-Vorverstärkerplatine
Pre-amplifier P.C.B. phono

Bestückungsseite
Top view



R918 39 1/2
LA3161
C1001 150P
94HB PC-202

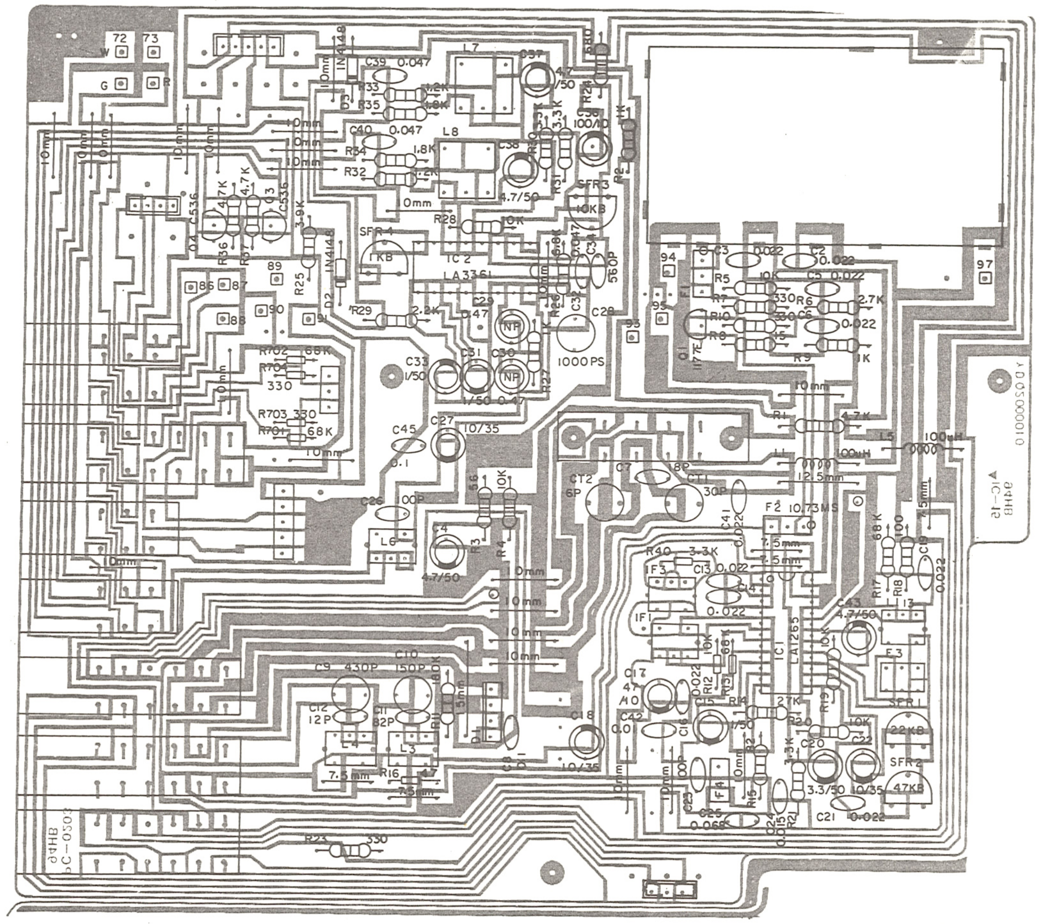
Leiterbahnseite
Bottom view



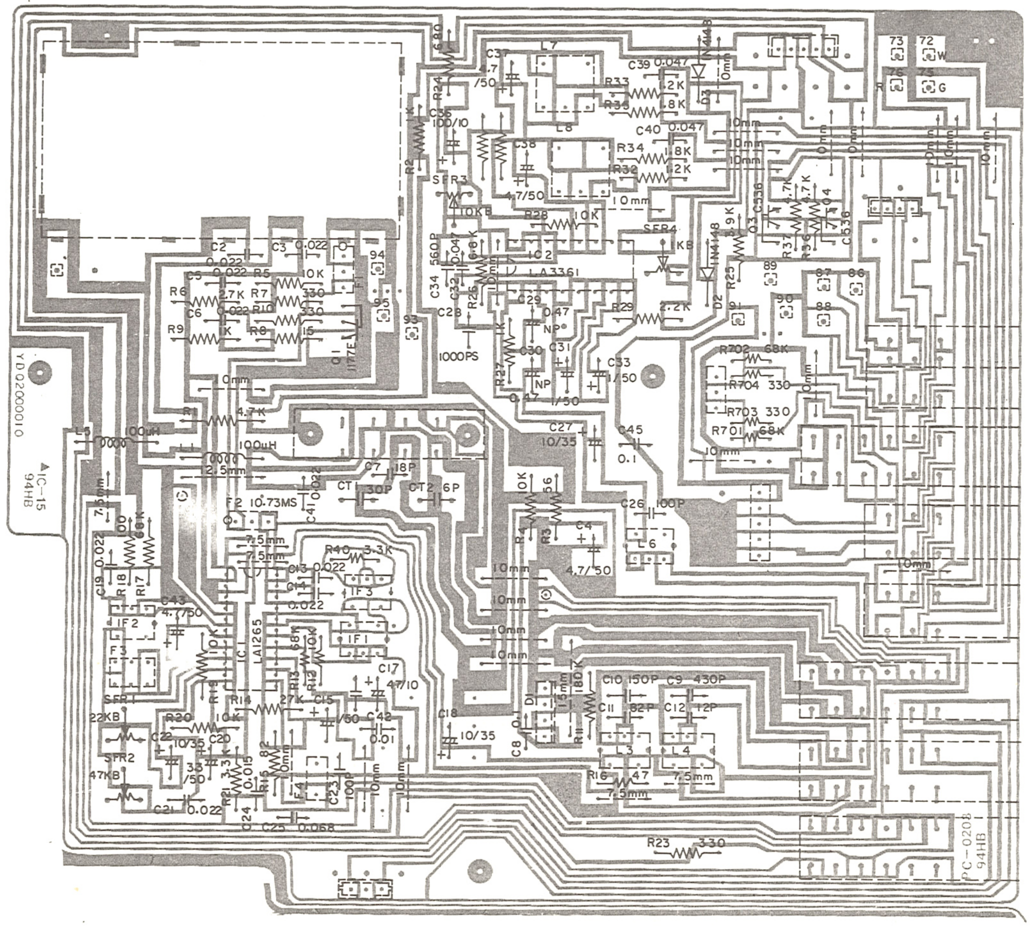
PC-202 94HB
C1001 150P
LA3161
R918 39 1/2

Tunerplatine Queens 200
Tuner P.C.B. Queens 200

Bestückungsseite
Top view

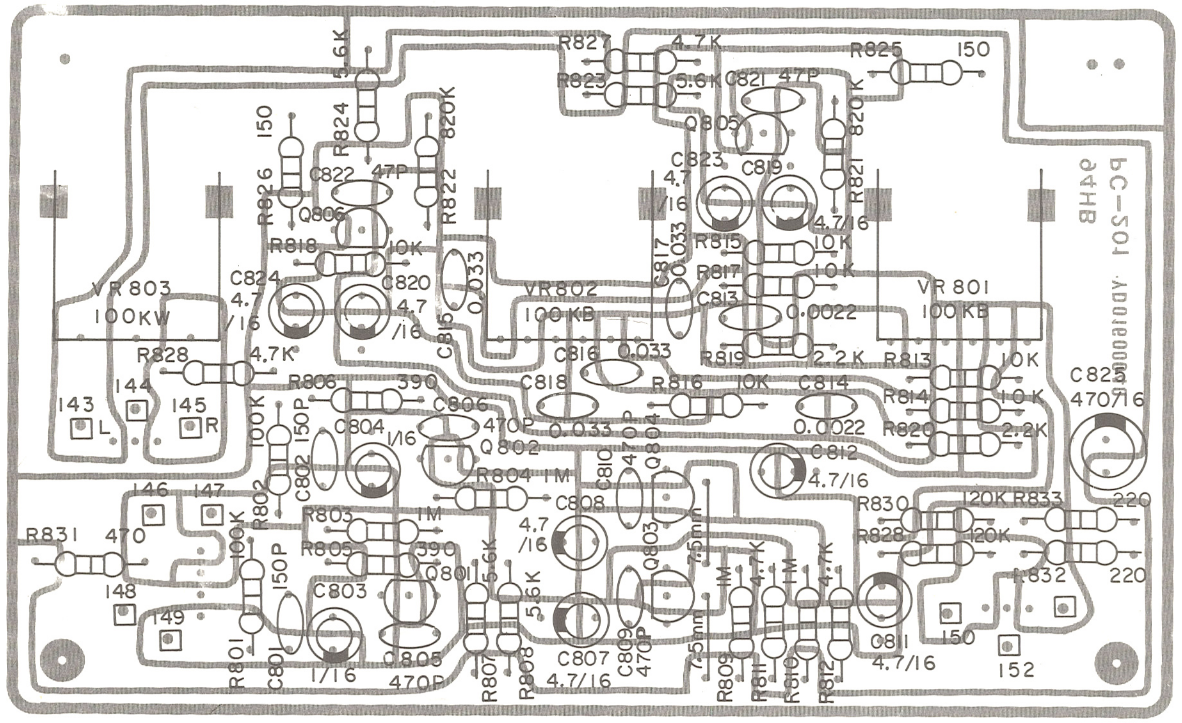

AIC-15
94HB
PC-0201

Leiterbahnseite
Bottom view

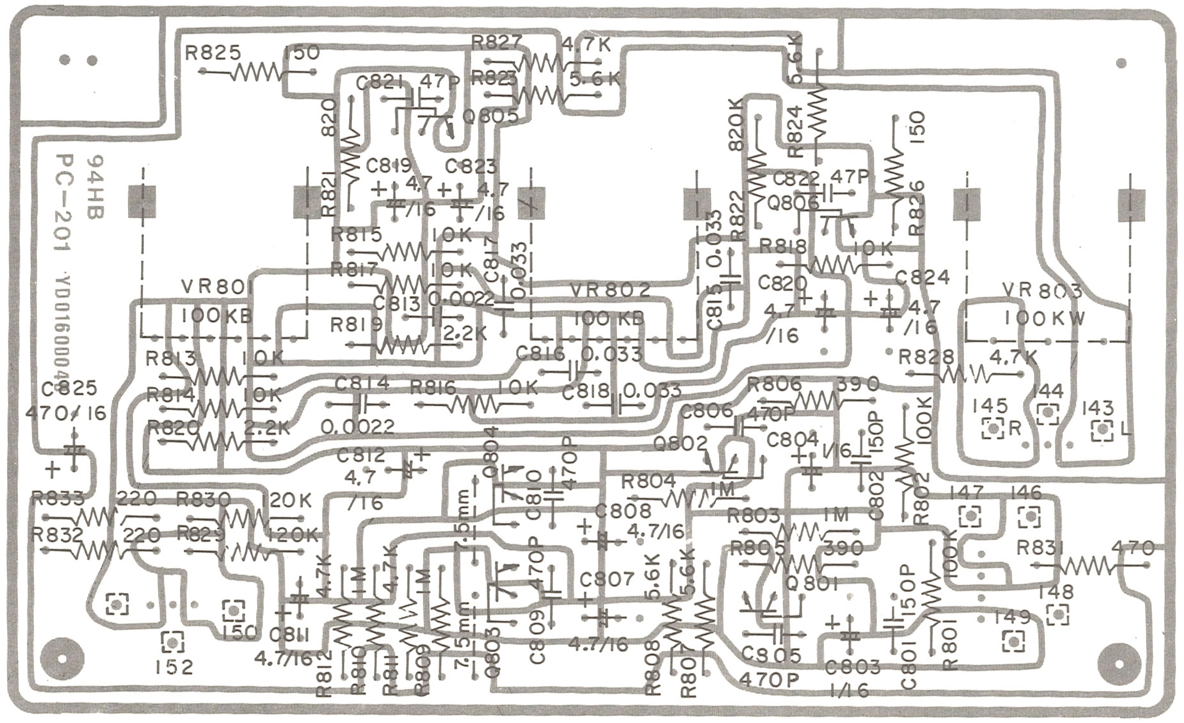

AIC-15
94HB
PC-0201

Klangreglerplatine Queens 200
Tone P.C.B. Queens 200

Bestückungsseite
Top view


PC-201
94HB
YD0160004

Leiterbahnseite
Bottom view


PC-201
94HB
YD0160004

ALIGNMENT PROCEDURE

MODEL Q200

1

LW

GENERAL ALIGNMENT CONDITIONS

1. Signal input must be kept as low as possible to avoid overload and clipping.
   (Use highest possible sensitivity of output indicator.)
2. Signal input should be kept as low as possibel to avoid A.G.C. action.
   (Set output indicator to highest sensitvity.)
3. Marker insertion and amplitude should not distort the oscillator and amplitude should not distort the oscilloscope trace.
4. Standard modulation is 400 Hz 30% .

INSTRUMENT REQUIRED

Signal source	Output indicators
* AM signal generator *	* AC millivolt meter *
* Radio sweep generator *	* Oscilloscope *
* Sweep oscilloscope *	

STEP	CONNECT SIGNAL SOURCE TO -	CONNECT OUTPUT INDICATOR -	SET SIGNAL OR INSERT MARKER	SET RADIO DIAL TO -	ADJUST	ADJUST FOR -
1	Set function selector switch on the front panel to " LW " position.					
2	Signal generator connected to a loop	AC millivolt meter and oscilloscope connected across speaker	137 KHz	137 KHz	LW OSC L - 3	maximum
3			290 KHz	290 KHz		
4			170 KHz	170 KHz	LW BAR ANT COIL	
5			270 KHz	270 KHz	FM Trimmer CT - 1	
6	Repeat step 3 through 6 as necessary to obtain maximum sensitivity on station.					
8	Signal generator connected to a loop	AC millivolt meter and oscilloscope connected across speaker	164 KHz	164 KHz	SFR - 1	Auto lock at about 66 dB

ALIGNMENT PROCEDURE

MODEL Q200

2

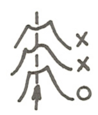
MW

GENERAL ALIGNMENT CONDITIONS

1. Signal input must be kept as low as possible to avoid overload and clipping.
   (Use highest possible sensitivity of output indicator.)
2. Signal input should be kept as low as possible to avoid A.G.C. action.
   (Set output indicator to highest sensitivity.)
3. Maker insertion and amplitude should not distort the oscillator and amplitude should not distort the oscilloscope trace.
4. Standard modulation is 400 Hz.

INSTRUMENTS REQUIRED

Signal source	Output indicators
* AM signal generator *	* AC millivolt meter *
* Radio sweep generator *	* Oscilloscope *
* Sweep oscilloscope *	

STEP	CONNECT SIGNAL SOURCE TO -	CONNECT OUTPUT INDICATOR -	SET SIGNAL OR INSERT MARKER	SET RADIO DIAL TO -	ADJUST	ADJUST FOR -
1	Set function selector switch on the front panel to " MW " position.					
2	Sweep generator connected to a loop or short piece of wire placed near AM antenna	Sweep oscilloscope connected to wire pin of the C 43 of C 44 and volume to mzximum	See amplitude of 455 KHz	Quiet point on band near 513 KHz	F 2	 Ampltude of filter
3	Signal generat- or connected to a loop	AC millivolt meter and oscilloscope connected across spraker	513 KHz	513 KHz	AM OSC L 4	maximum
4			1620 KHz	1620 KHz		
5			600 KHz	600 KHz	AM BAR ANT COIL	
6			1400 KHz	1400 KHz	RF Trimmer CT - 2	
7	Repeat step 3 through 6 necessary to obtain maximum sensitivity on station.					

ALIGNMENT PROCEDURE

MODEL Q200

3

FM

GENERAL ALIGNMENT CONDITION

1. Signal input must be kept as low as possible to avoid ocerload clipping.
   (Use highest possitivity of output indicator.)
2. Makers must be accurate (crystal controlled or calibrated). The 10.7 MHz marker used in each section of the FM alignment must be the same.
3. Signal input should be kept as low as possible to avoid A.G.C. action.
   (Set output indicator to highest sensitivity.)
4. FM signal generator RF output frequency must be monitoring.
5. Standard modulation is 1 KHz (40 KHz)

INSTRUMENTS REQUIRED

Signal sources	Output indicators
* FM signal generator *	* AC millivolt meter *
* Radio sweep generator *	* Oscilloscope *
* Sweep oscilloscope *	* 114 KHz signal generator *
* Frequency counter *	

STEP	CONNECT SIGNAL SOURCE TO –	CONNECT OUTPUT INDICATOR TO –	SET SIGNAL OR INSERT MARKER	SET RADIO DIAL TO	ADJUST	ADJUST FOR –
1	Set function selector switch on the front panel to " FM " position.					
2	Radio sweep generator connect to FM front ent tuner pin 3	Oscilloscope connected to wire pin of the C 43 of C 44 and volume VR to maximum	10.6 10.7 10.8 MHz marker	Quiet scale pointer on band	IF 1 IF 3	Straightness and symmetry of " S " curve with 10.7 MHz makerd at zero crossover

4

MPX

GENERAL ALIGNMENT CONDITION

1. Adjust FM signal generator output to 1mV (60dB) with MPX modulation 1 KHz

Deviation = 33.75 KHz

Pilot = 6 KHz

INSTRUMENTS REQUIRED

Signal source	Output indicator
* FM signal generator *	* Frequency counter *
* Stereo signal generator *	* AC millivolt meter *
	* Oscilloscope *

STEP	CONNECT SIGNAL SOURCE TO –	CONNECT OUTPUT INDICATOR TO –	SET SIGNAL	SET RADIO DIAL	ADJUST	ADJUST FOR –
1	Set function selector switch on the front panel to " FM STEREO " Position.					
2	FM signal generator connected to FM aerial	Frequency counter connect to MPX test point	98 MHz and modulation off, pilot signal off too	98 MHz	SFR – 3	19.00 KHz + / – 50 Hz

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Abgleichanweisung Cassette Queens 200
Alignment procedure cassette Queens 200

TAPE POSITION Recorderstellung	INPUT SIGNAL Eingangsspannung	TEST TAPE Testcassette	MEASURING INSTRUMENT Meßgerät	TEST POINT Meßpunkt	ADJUSTMENT LOCATION Abgleichpunkt	MEASURING SIGNAL Meßsignal

1. Head azimuth/A/W-Kopf-Einstellung

PLAYBACK		MTT-114 N 10 kHz	V.T.V.M AC-Millivoltmeter	OUT L CH OUT R CH	AZIMUTH SCREW	NF-max.

2. Tape speed/Geschwindigkeit

PLAYBACK LOW		MTT- 111 N 3000 Hz	FREQUENCY COUNTER Frequenz-zähler	OUT L CH OUT R CH	TAPE A SFR 415 TAPE B SFR 413	3000 Hz
PLAYBACK HIGH		MTT-111 N 3000 Hz		OUT L CH OUT R CH	TAPE A SFR 414 TAPE B SFR 412	4800 Hz

3. Dolby level/Dolby-Pegel

PLAYBACK		MTT-150 DOLBY TAPE 400 Hz	V. T. V. M AC-Millivoltmeter	IC 403 Pin 4 Pin 21	TAPE A SFR 404 SFR 403 TAPE B SFR 402 SFR 401	580 mV

4. Oscillator coil frequency/Oszillatorfrequenz

RECORD		AC-513 IEC-II	FREQUENCY COUNTER Frequenzzähler	ERASE HEAD Löschkopf	L-411	125 kHz

5. Trap coil/HF-Sperre

RECORD		AC-513 IEC-II	V. T. V. M AC-Millivoltmeter	R 489 R 490	L-405 L-406	MINIMUM

6. Head bias level/Vormagnetisierung

RECORD		AC-513 IEC-II	V. T. V. M AC-Millivoltmeter	R/P HEAD	SFR 407/SFR 408	76 mV
		AC-212 IEC-I		R/P HEAD	SFR 409	55 mV

7. Level meter/Anzeige

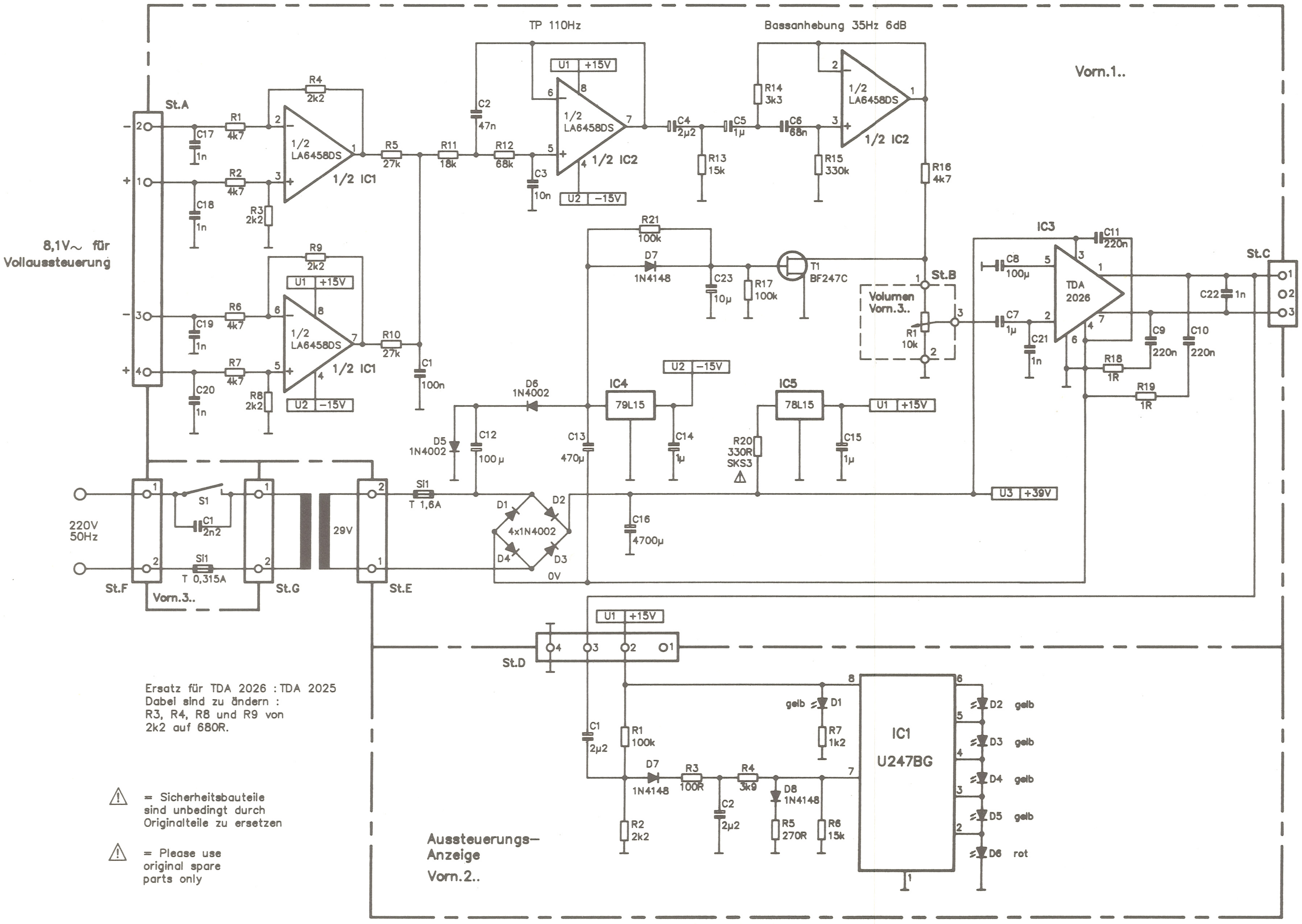
RECORD	AUX IN 1 kHz/500 mV	AC-513 IEC-II	VR 401 to 580 mV at IC 403 Pin 4/Pin 20 Mit VR 401 an IC 403 580 mV einstellen.		SFR-411 5 YELLOW LED LIGHT SFR-411 so abgleichen, daß alle 5 gelben LED's leuchten.	

8. Record level/Aufnahmepegel

RECORD	AUX IN 1 kHz/500 mV	AC 513 IEC-II	V. T. V. M AC-Millivoltmeter	TP 1 TP 2	VR 401 to 580 mV at IC403 Pin4/Pin20 SFR 405/SFR 406	185 mV

Löschspannung:	Fe:	ca. 150 Vss
	Cr:	ca. 200 Vss
Vormagnetisierung:	Fe:	ca. 65 Vss
	Cr:	ca. 80 Vss

Schaltbild Subwoofer
Circuit diagram Subwoofer

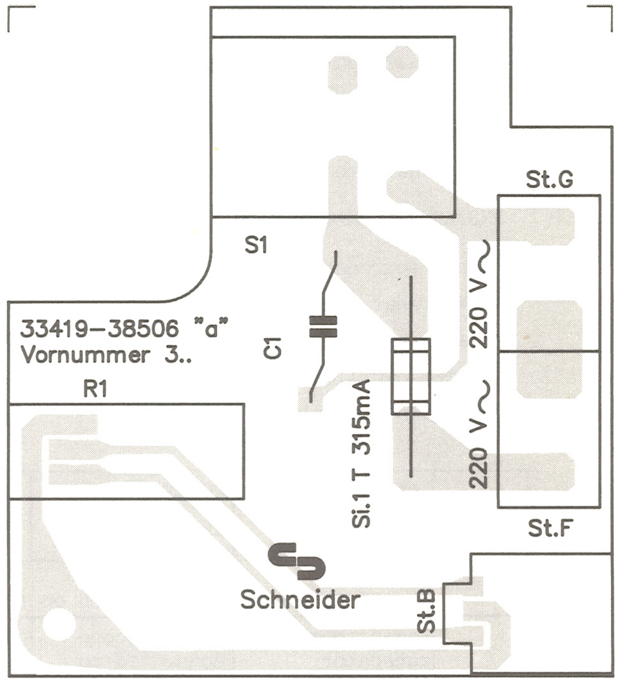

St.A
8,1V~ für Vollaussteuerung
C17 1n
C18 1n
C19 1n
C20 1n
R1 4k7
R2 4k7
R3 2k2
R4 2k2
R5 27k
R6 4k7
R7 4k7
R8 2k2
R9 2k2
R10 27k
1/2 LA6458DS
1/2 IC1
TP 110Hz
R11 18k
R12 68k
C2 47n
C3 10n
U1 +15V
U2 −15V
1/2 IC2
C4 2µ2
C5 1µ
C6 68n
R13 15k
Bassanhebung 35Hz 6dB
R14 3k3
R15 330k
R16 4k7
Vorn.1..
C1 100n
R21 100k
D7 1N4148
C23 10µ
R17 100k
T1 BF247C
St.B
Volumen Vorn.3..
R1 10k
IC3
TDA 2026
C8 100µ
C7 1µ
C21 1n
C11 220n
C9 220n
C10 220n
R18 1R
R19 1R
C22 1n
St.C
+ LS
− LS
D6 1N4002
D5 1N4002
C12 100µ
C13 470µ
IC4 79L15
C14 1µ
IC5 78L15
R20 330R SKS3
C15 1µ
U3 +39V
220V 50Hz
S1
C1 2n2
SI1 T 0,315A
St.F
Vorn.3..
St.G
29V
St.E
SI1 T 1,6A
D1
D2
D3
D4
4x1N4002
C16 4700µ
0V
St.D
U1 +15V
Aussteuerungs-Anzeige
Vorn.2..
C1 2µ2
R1 100k
R2 2k2
D7 1N4148
R3 100R
R4 3k9
C2 2µ2
D8 1N4148
R5 270R
R6 15k
R7 1k2
gelb D1
IC1 U247BG
D2 gelb
D3 gelb
D4 gelb
D5 gelb
D6 rot

Ersatz für TDA 2026 : TDA 2025
Dabei sind zu ändern :
R3, R4, R8 und R9 von
2k2 auf 680R.

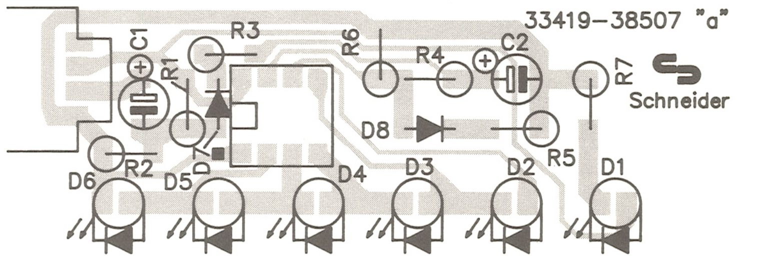
⚠ = Sicherheitsbauteile sind unbedingt durch Originalteile zu ersetzen

⚠ = Please use original spare parts only

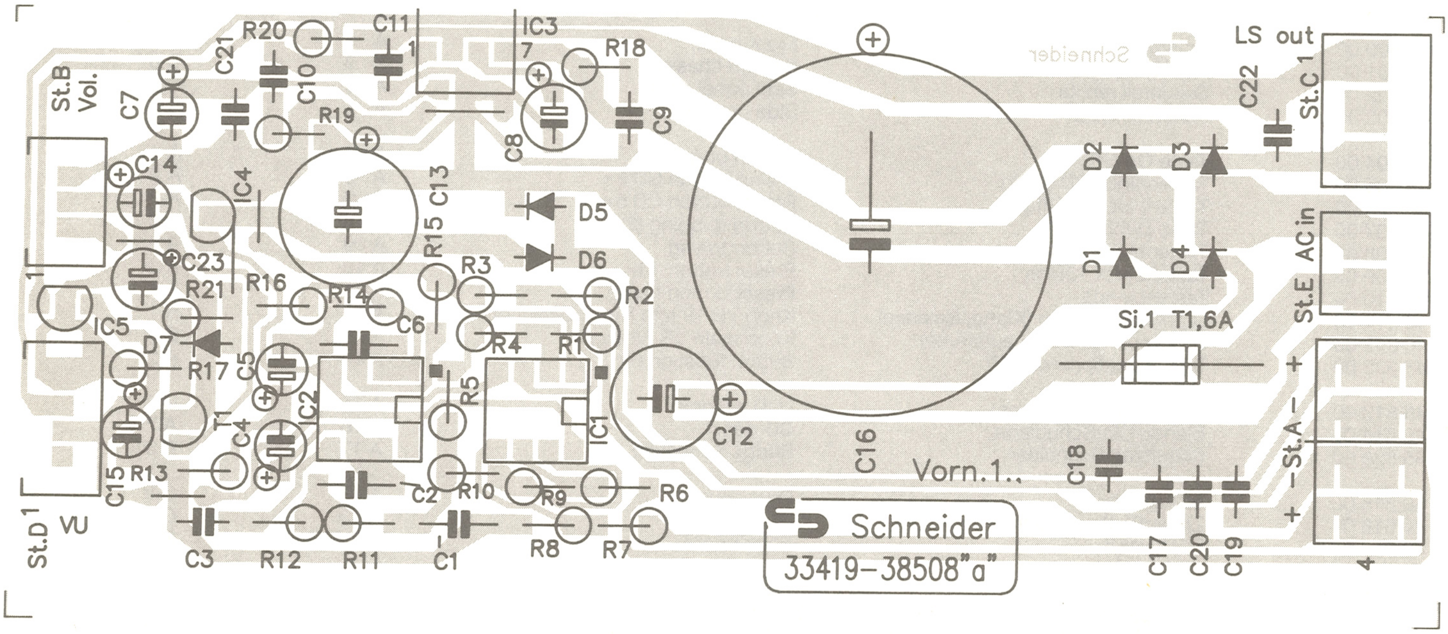
Netzschalter-Platine Subwoofer
Power switch P.C.B. Subwoofer


St.G
S1
33419−38506 "a"
Vornummer 3..
C1
R1
220 V ~
220 V ~
Si.1 T 315mA
St.F
Schneider
St.B

LED-Kette-Platine Subwoofer
LED power meter P.C.B. Subwoofer


33419−38507 "a"
C1
R1
R3
R6
R4
C2
R7
Schneider
D8
D7
R2
R5
D6
D5
D4
D3
D2
D1

Verstärker-Platine Subwoofer
Amplifier P.C.B. Subwoofer


R20
C11
IC3
7
1
R18
Schneider
LS out
St.C 1
C22
St.B Vol.
C21
C10
C7
R19
C8
C9
C14
IC4
C13
R15
D5
D6
D2
D3
D1
D4
St.E AC in
C23
R21
R16
R14
R3
R2
C6
IC5
D7
R17
C5
R4
R1
Si.1 T1,6A
IC2
R5
IC1
C12
T1
C4
C16
C18
Vorn.1..
St.A
+
–
C15
R13
C2
R10
R9
R6
St.D 1
VU
C3
R12
R11
C1
R8
R7
Schneider
33419-38508"a"
C17
C20
C19
4

Ersatzteilliste Subwoofer
Spare parts subwoofer

Bestell-Nr./ Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price key
47 063 00	Gehäuse Queens Subwoofer	Housing Queens subwoofer		D 9
47 061 00	Abdeckgitter Queens Subwoofer (vorn)	Mask Queens subwoofer (front)		B 8
47 066 00	Abdeckgitter Queens Subwoofer (oben)	Mask Queens subwoofer (top)		B 5
47 079 00	Frontteil Queens Subwoofer	Front panel Queens subwoofer		D 5
41 970 00	Frontblende Queens (Plexiglas)	Front window Queens (plexiglass)		C 4
27 747 00	Fuß 50 mm mit Gummi	Foot 50 mm with rubber		A 8
18 331 00	Tastenknopf 24 × 15,5 (Power on/off)	Knob push 24 × 15.5 (Power on/off)		A 3
18 336 00	Drehknopf 14,6 (Bass level)	Knob VR 14.6 (Bass level)		A 3
27 638 00	Lautsprecher 8 Ohm KW-200-1328	Speaker 8 Ohm KW-200-1328		D 2
38 487 00	Trafo El 66	Power transformer El 66		D 8
11 760 00	Buchse Lautsprecher	Speaker jack		A 3
39 258 00	Verstärker-LP kpl. MS1	Amplifier P.C.B. assembly		D 5
38 510 00	Transistor BF 247 C	Transistor BF 247 C	T 101	B 0
23 257 00	IC LA 6458 DS Dual-OP	IC LA 6458 DS	IC 101/102	A 9
38 511 00	IC 78 L 15	IC 78 L 15	IC 105	A 3
38 512 00	IC 79 L 15	IC 79 L 15	IC 104	A 3
38 286 00	IC TDA 2025	IC TDA 2025	IC 103	B 7
38 007 00	Zenerdiode ZPD 18(K)	Zenerdiode ZPD 18	D 107	A 1
31 729 00	Diode 1 N 4002	Diode 1 N 4002	D 101	A 2
38 555 00	Sicherungswiderstand 330 Ohm/⅓ W	Fuse resistor 330 Ohm/⅓ W	R 120	A 2
39 259 00	Netzschalter-LP kpl. MS1	Power switch P.C.B. assembly		C 3
38 486 00	Drehwiderstand Lautstärke 10 K	Rotary VR 10 K volume	R 301	B 5
38 030 00	Netzschalter	Power switch	S 301	B 2
39 260 00	LED-Kette-LP kpl. MS1	LED Power meter P.C.B. assembly		C 1
02 424 00	IC U 247 B Anzeige-IC	IC U 247 B (indication IC)	IC 201	B 5
31 463 00	Diode 1 N 4148 (A)	Diode 1 N 4148 (A)	D 207/208	A 1
38 502 00	Leuchtdiode rot	LED red	D 206	A 3
38 500 00	Leuchtdiode gelb	LED yellow	D 201-205	A 3
47 069 00	Sty.-Verp. Queens Subwoofer/Unterschr.	Polyfoam Queens subwoofer		C 6
47 068 00	Faltkarton Queens Subwoofer/Unterschr.	Carton Queens subwoofer		C 8

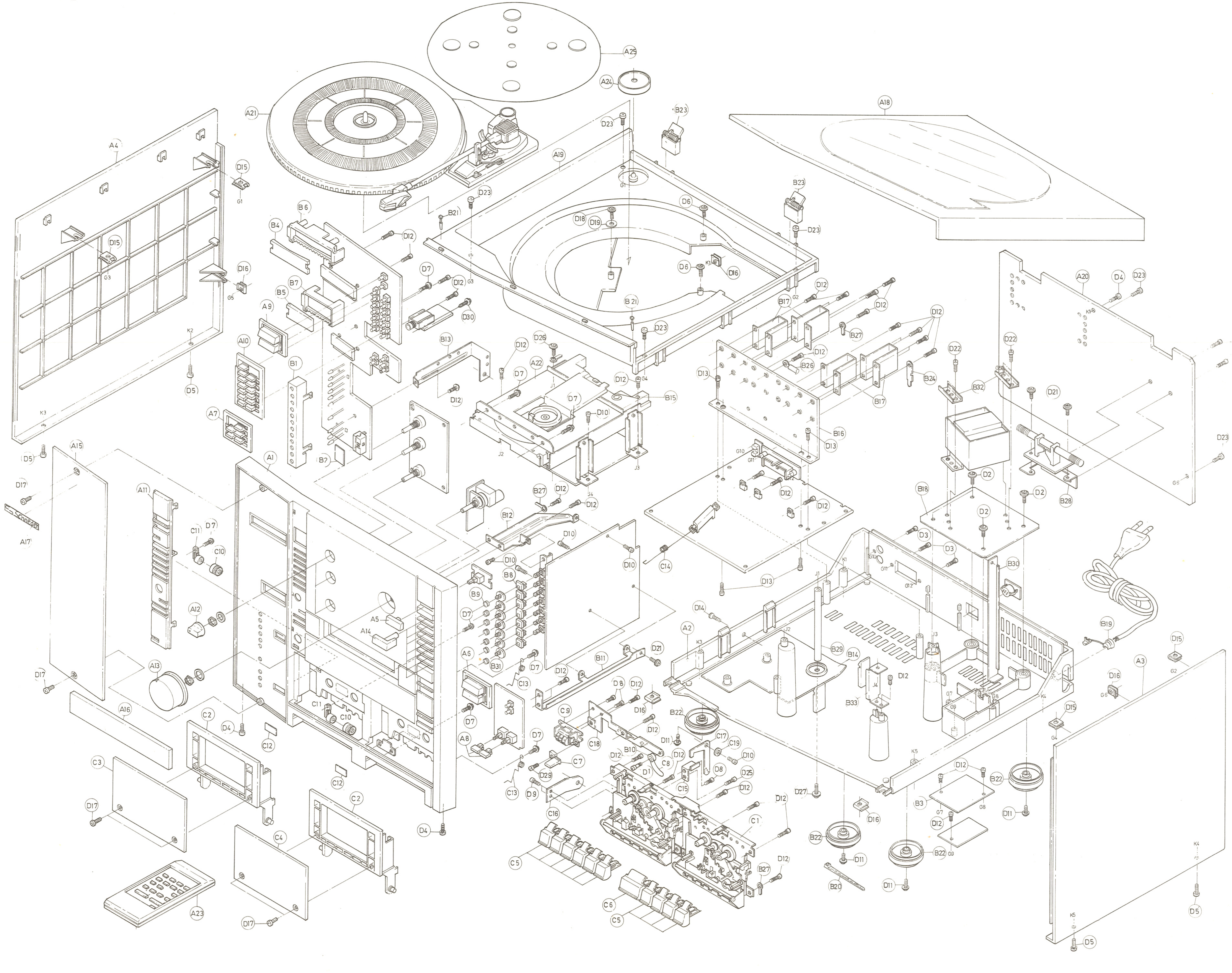
Ersatzteilliste Gehäuseteile Queens 160
Spare parts list housing parts Queens 160

Bestell-Nr./ Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price key
46 800 00	Frontteil	Front panel	A 1	C 7
46 801 00	Gehäuseboden	Bottom chassis	A 2	C 6
46 802 00	Seitenteil rechts	Side panel right	A 3	C 3
46 803 00	Seitenteil links	Side panel left	A 4	C 2
46 804 00	Taste On/Off	Button on/off	A 5	A 1
46 805 00	Tastenblock CD 2fach	Preset button CD 2×	A 6	A 2
46 806 00	Tastenblock CD 5fach	Preset button CD 5×	A 7	A 2
46 807 00	Taste Dubbing (2)	Button dubbing (2)	A 8	A 0
46 808 00	Tastenblock Tuning	Button tuning	A 9	A 2
46 809 00	Tastenblock 13fach	Preset button 13×	A 10	A 3
46 810 00	Tastenblende	Preset button frame	A 11	A 7
46 811 00	Drehknopf 19 mm (Klang, Balance)	Knob VR 19 mm (Tone, balance)	A 12	A 1
46 812 00	Drehknopf 52 mm (Lautstärke)	Knob main VR (Volume)	A 13	B 4
46 833 00	Taste Funktionswahl (7)	Button function (7)	A 14	A 2
46 813 00	Frontblende (Plexiglas)	LCD window	A 15	C 8
46 814 00	Blende CD-Schublade	CD door	A 16	A 7
35 520 00	Schriftzug Schneider	Badge Schneider	A 17	A 3
46 815 00	Abdeckhaube	Dust cover	A 18	C 9
46 816 00	Zarge Plattenspieler	Player board	A 19	C 3
46 817 00	Rückwand	Back board	A 20	B 5
46 818 00	Plattenspieler kpl.	Player assembly	A 21	E 5
46 819 00	CD-Spieler kpl.	CD player	A 22	G 2
46 851 00	Doppel-Cass.-Mechanik TN-21ZSW-494	Double cass. mechanic TN-21ZSW-494	C 1	E 8
46 820 00	Fernbedienungsgeber Queens	Remote control	A 23	D 5
03 460 00	Plattenpuck	Adapter 45 rpm	A 24	A 2
46 821 00	Matte Plattenteller	Turn-table mat	A 25	B 5
46 822 00	Streuglas Tunerdisplay	Screen tuner display	B 4	A 3
46 823 00	Streuglas CD-Display	Screen CD display	B 5	A 2
46 824 00	Reflektor Tunerdisplay	Reflector tuner display	B 6	A 2
46 825 00	Reflektor CD-Display	Reflector CD display	B 7	A 2
40 026 00	Steckhülse Funktionsschalter	Spacer function switch	B 8	A 1
46 826 00	Pulley Zählwerk	Pulley tape counter	B 10	A 0
46 827 00	Gehäusefuß	Foot	B 22	A 9
37 813 00	Scharnier Abdeckhaube	Hinge assembly	B 23	B 0
46 828 00	Sicherungsknebel Funktionsschalter	Spacer function switch	B 31	A 1
46 852 00	Cassettenfach	Cassette case	C 2	A 5
46 853 00	Cassettenfachdeckel A	Cassette window A	C 3	B 1
46 854 00	Cassettenfachdeckel B	Cassette window B	C 4	B 1
46 855 00	CR-Taste schmal	Cass. key small	C 5	A 2
46 856 00	CR-Taste breit	Cass. key large	C 6	A 2
46 857 00	Taste Zählwerk	Counter knob	C 7	A 1
46 858 00	Zählwerkriemen	Counter belt	C 8	A 2
46 859 00	Zählwerk	Tape counter	C 9	B 4
40 790 00	Dämpfrad	Damper gear	C 10	A 2
40 791 00	Dämpfradhalter	Damper holder	C 11	A 2
46 860 00	Feder Cassettenfach	Cass. open spring	C 13	A 1
46 861 00	Feder AW-Schalter	Cass. rec. spring	C 14	A 2
46 862 00	Zierschraube	Screw bolt	D 17	A 1
46 843 00	Karton Queens 160/200	Carton Queens 160/200		C 3
46 844 00	Styropor-Verpackung rechts	Poly foam right		C 0
46 845 00	Styropor-Verpackung links	Poly foam left		C 0
42 833 00	Queens 160 LS links	Queens 160 LS left		
42 834 00	Queens 160 LS rechts	Queens 160 LS right		
46 827 00	Gehäusefuß LS-Box	Foot speakerbox		A 9

Explosionsdarstellung Gehäuse Queens 160

Exploded view housing Queens 160

Explo-Index: A–D


A25
A24
A21
D23
B23
A18
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D15
A19
G1
D23
B21
B6
B23
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D19
D23
D12
B4
D15
G3
D16
G5
D7
D12
B7
B5
K1
D6
D16
A20
D4
D23
A9
D30
B21
D12
B17
D12
G2
D12
D23
D12
A10
B13
D12
D26
B27
D22
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K1
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A13
B11
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G7
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G6
D8
D12
D16
B33
J4
G9
D15
A16
C9
C2
D4
C12
B22
C18
D11
C17
C19
D7
A8
D10
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C7
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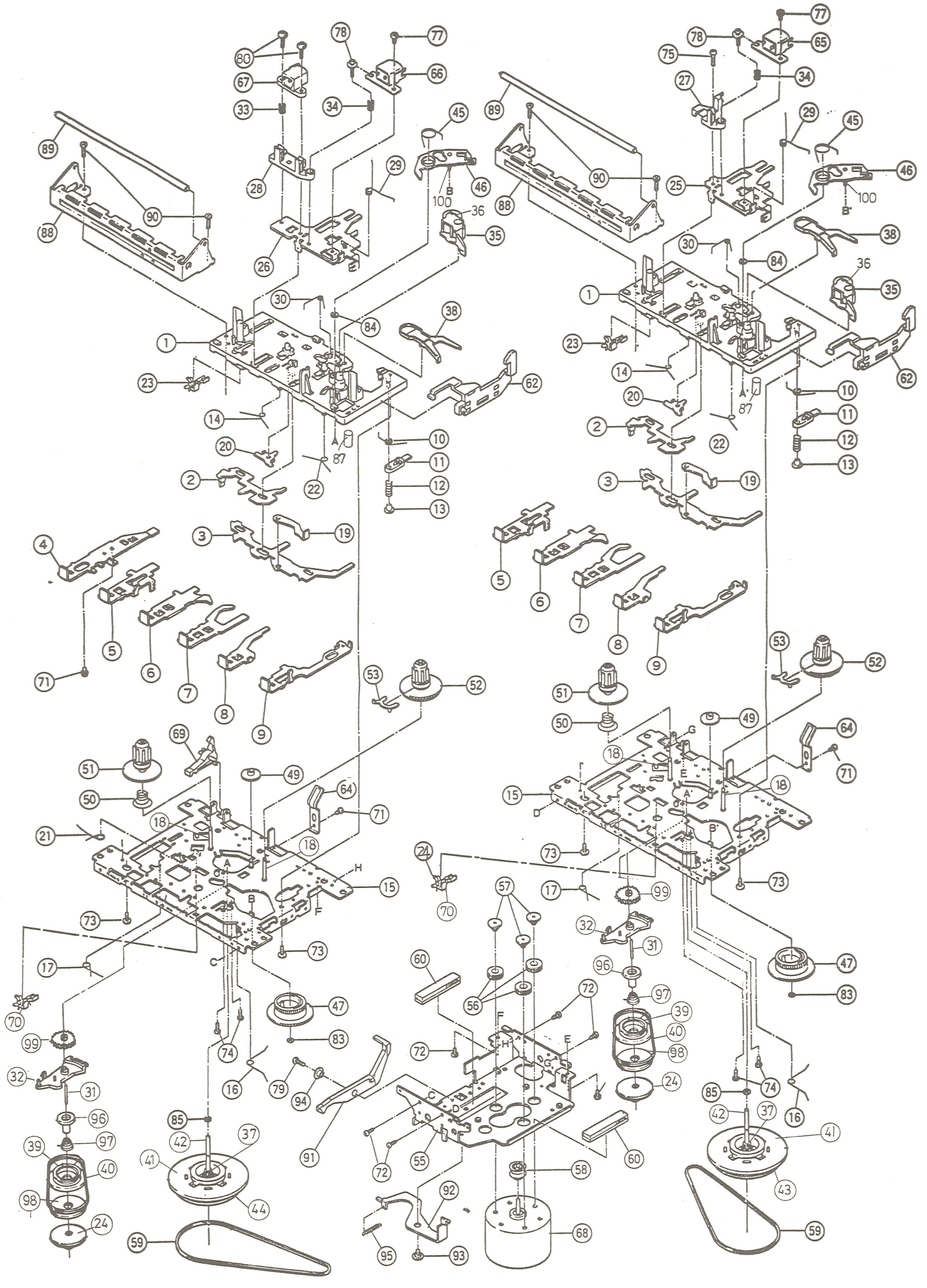
C3
D29
D1
C15
D12
C13
D9
D27
K5
D12
B22
B3
G7
G8
D11
C12
C2
C16
D12
D16
D17
D4
C1
D12
B22
C4
C5
B27
D12
B20
D11
B22
G3
K4
D11
A23
C6
C5
D17
D5
K5
D5

Explosionsdarstellung Cassettenmechanik Queens 160
Exploded view cassette mechanism Queens 160
Explo-Index: CM



Ersatzteilliste Cassettenmechanik Queens 160
Spare parts list cassette mechanism Queens 160

Bestell-Nr./ Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price key
46 863 00	Feder Pauserasthebel	Spring pause lever	CM 10	A 0
46 417 00	Pauserasthebel	Pause lever	CM 11	A 0
44 130 00	Druckfeder Pauserasthebel	Spring pause lever	CM 12	A 0
44 131 00	Sicherungsstöpsel Pause	Pause stopper	CM 13	A 0
32 428 00	Feder Tastenhebel (Vor-, Rücklauf)	Button lever spring (FF, REW.)	CM 14	A 3
46 864 00	Feder Aufnahmetaste	Spring rec. button	CM 21	A 0
32 423 00	Feder Tastenhebel (Stop, Pause)	Button lever spring (Pause, Stop)	CM 22	A 3
44 132 00	Mikroschalter MSW L 541 T	Leaf switch MSW L 541 T	CM 23	A 4
45 760 00	Feder Kopfträgerplatte	Spring head panel	CM 29	A 1
32 432 00	Feder Löschkopf	Erase head spring	CM 33	A 3
32 435 00	Feder A/W-Kopf	Spring R/P head	CM 34	A 3
32 436 00	Bandandruckrolle kpl.	Pinch roller assembly	CM 35	B 6
44 135 00	Tasthebel Endabschaltung	Sensing lever stop	CM 38	A 1
44 137 00	Rutschkupplung kpl.	RF clutch assembly	CM 39	A 7
44 138 00	Riemen Rutschkupplung	Belt RF clutch	CM 40	A 4
46 865 00	Schwungmasse AW-Laufwerk	Fly-wheel R/P	CM 44	B 7
46 866 00	Schwungmasse Wiedergabe-Laufwerk	Fly-wheel Play mechanism	CM 43	B 7
44 136 00	Kurvenzahnrad	Cam gear	CM 47	A 2
44 140 00	Zahnrad Vorlauf	FF gear	CM 49	A 1
44 319 00	Feder Wickelteller links	Back tension spring	CM 50	A 0
44 141 00	Wickelteller links	Supply reel	CM 51	A 3
44 142 00	Wickelteller rechts kpl.	Take-up reel assembly	CM 52	A 4
46 436 00	Spange Wickelteller	Sensor	CM 53	A 1
32 453 00	Gummipuffer Motor	Motor rubber	CM 56	A 2
32 454 00	Schraube Motor	Motor collar screw	CM 57	A 2
44 778 00	Pulley-Motor	Pulley motor	CM 58	A 6
40 818 00	Antriebsriemen	Main belt	CM 59	A 3
46 418 00	Gleithebel Eject	Eject slide lever	CM 62	A 3
32 459 00	Cassettenandruckfeder	Pack spring	CM 64	A 5
34 348 00	Wiedergabekopf	Play head	CM 65	B 6
34 349 00	A/W-Kopf	R/P head	CM 66	B 6
24 513 00	Löschkopf	Erase head	CM 67	B 0
46 177 00	Antriebsmotor SH U 2 L	Drive motor SH U 2 L	CM 68	C 6
32 451 00	Aufnahmesperrhebel	Record safety lever	CM 69	A 5
44 133 00	Mikroschalter MSW-17820 MVDO	Leaf switch MSW-17820 MVDO	CM 70	A 7
32 462 00	Sicherungsscheibe Schwungmasse	Polyslider washer fly-wheel	CM 85	A 0
46 867 00	Kick-Hebel Doppelpause	Kick lever pause	CM 91	A 1
46 868 00	Feder Kick-Hebel	Spring kick lever	CM 95	A 0

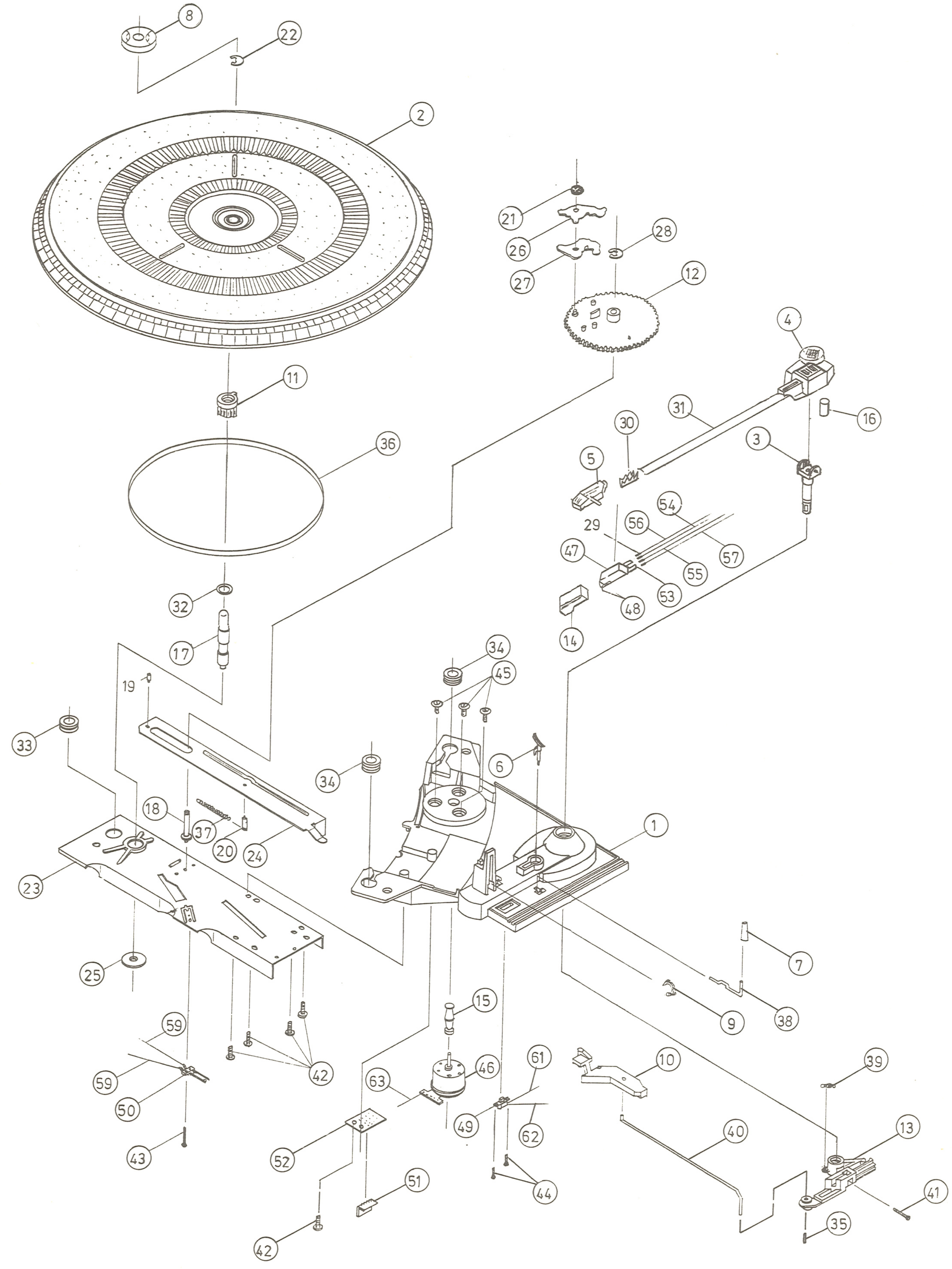
Ersatzteilliste Plattenspieler Queens 160/Queens 200
Spare parts list player Queens 160/Queens 200

Bestell-Nr./ Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price key
46 819 00	Plattenspieler kpl.	Player assembly	A 21	E 5
48 018 00	Plattenteller mit Zahnrad	Turn-table with gear	PL 2+11	C 3
48 019 00	Tonarm kpl. mit System	Tone arm assembly with system		D 5
48 020 00	Tonarmlift	Cueing shaft	PL 6	A 2
46 182 00	Liftknopf	Knob	PL 7	A 1
03 460 00	Puck	Adapter	PL 8	A 2
34 357 00	Clip Tonarmstütze	Pick-up cramper	PL 9	A 1
48 021 00	Gleitschieber Motorschalter	Trip pawl	PL 10	A 2
48 022 00	Kurvenrad	Cam gear	PL 12...	A 9
48 023 00	Endschalthebel	Control lever	PL 13...	A 3
48 024 00	Nadelschutz	Stylus cover	PL 14	A 1
40 829 00	Motorpulley	Motor pulley	PL 15	A 2
32 868 00	Sicherungsring Plattenteller	E-ring turn-table	PL 22	A 0
48 025 00	Gleithebel	Drive plate	PL 24...	A 7
14 229 00	Sicherungsring Kurvenrad	E-ring cam gear	PL 28	A 1
48 026 00	Lagergummi unten	Grommet	PL 33	A 2
48 027 00	Lagergummi oben (2)	Grommet (2)	PL 34	A 2
48 028 00	Gummiring	Insert rubber	PL 35	A 0
34 371 00	Antriebsriemen	Belt	PL 36	B 0
48 029 00	Feder Gleithebel	Spring drive plate	PL 37	A 2
48 030 00	Lifthebel	Cueing lever	PL 38	A 2
48 031 00	Schubstange	Control lever	PL 40	A 3
46 423 00	Motor SHR 2 R	Motor SHR 2 R	PL 46	C 5
48 032 00	System	Cartridge	PL 47	D 1
48 033 00	Abtastnadel	Stylus	PL 48	C 4
48 034 00	Schiebeschalter 33/45	Slide switch	PL 49	B 0
46 014 00	Microschalter Motor	Leaf switch	PL 50	A 5

Explosionsdarstellung Plattenspieler Queens 160/Queens 200

Exploded view player Queens 160/Queens 200

Explo-Index: PL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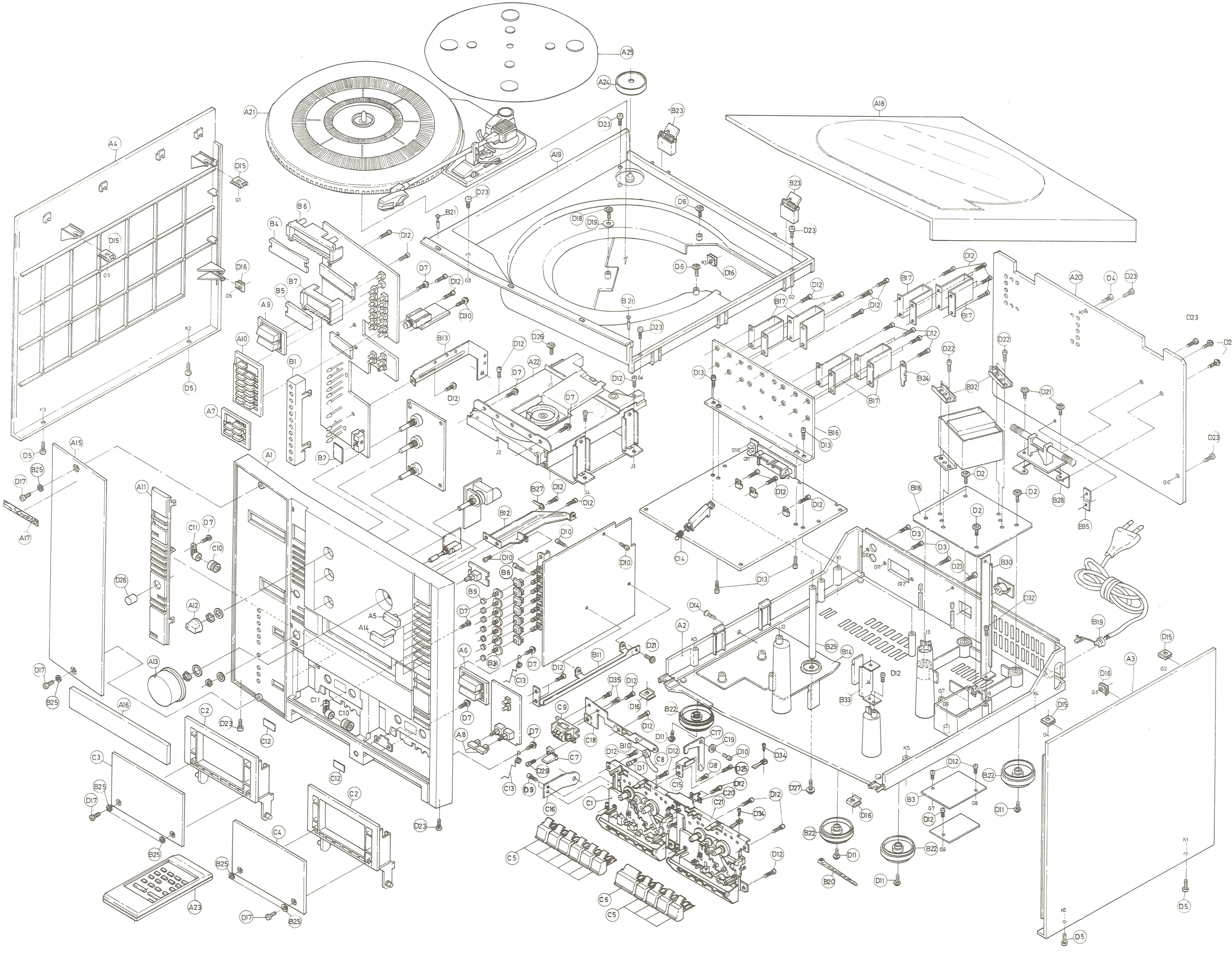
Ersatzteilliste Gehäuseteile Queens 200
Spare parts list housing parts Queens 200

Bestell-Nr./ Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price key
46 995 00	Frontteil	Front panel	A 1	C 7
46 996 00	Gehäuseboden	Bottom chassis	A 2	C 5
46 802 00	Seitenteil rechts	Side panel right	A 3	C 3
46 803 00	Seitenteil links	Side panel left	A 4	C 2
46 804 00	Taste On/Off	Button on/off	A 5	A 1
46 805 00	Tastenblock CD 2fach	Preset button CD 2×	A 6	A 2
46 806 00	Tastenblock CD 5fach	Preset button CD 5×	A 7	A 2
46 807 00	Taste Dubbing (2)	Button dubbing (2)	A 8	A 0
46 808 00	Tastenblock Tuning	Button tuning	A 9	A 2
46 809 00	Tastenblock 13fach	Preset button 13×	A 10	A 3
46 997 00	Tastenblende	Preset button frame	A 11	A 7
46 811 00	Drehknopf 19 mm (Klang, Balance)	Knob VR 19 mm (Tone, balance)	A 12	A 1
46 812 00	Drehknopf 52 mm (Lautstärke)	Knob Main VR (Volume)	A 13	B 4
46 833 00	Taste Funktionswahl (7)	Button function (7)	A 14	A 2
46 813 00	Frontblende (Plexiglas)	LCD window	A 15	C 8
46 814 00	Blende CD-Schublade	CD door	A 16	A 7
35 520 00	Schriftzug Schneider	Badge Schneider	A 17	A 3
46 815 00	Abdeckhaube	Dust cover	A 18	C 9
46 816 00	Zarge Plattenspieler	Player board	A 19	C 3
46 817 00	Rückwand	Back board	A 20	B 5
46 818 00	Plattenspieler kpl.	Player assembly	A 21	E 5
46 819 00	CD-Spieler kpl.	CD player	A 22	G 2
46 998 00	Cass.-Mech. A/W TN-21ZSB-495	Cass. mech. R/P TN-21ZSB-495	C 1	E 0
46 999 00	Cass.-Mech. Wiedergabe TN-21ZSB-496	Cass. mech. Play TN-21ZSB-496	C 21	D 9
46 820 00	Fernbedienungsgeber Queens	Remote control	A 23	D 5
03 460 00	Plattenpuck	Adapter 45 rpm	A 24	A 2
46 821 00	Matte Plattenteller	Turn-table mat	A 25	B 5
46 822 00	Streuglas Tunerdisplay	Screen tuner display	B 4	A 3
46 823 00	Streuglas CD-Display	Screen CD display	B 5	A 2
46 824 00	Reflektor Tunerdisplay	Reflector tuner display	B 6	A 2
46 825 00	Reflektor CD-Display	Reflector CD display	B 7	A 2
40 026 00	Steckhülse Funktionsschalter	Spacer function switch	B 8	A 1
46 826 00	Pulley Zählwerk	Pulley tape counter	B 10	A 0
46 827 00	Gehäusefuß	Foot	B 22	A 9
37 813 00	Scharnier Abdeckhaube	Hinge assembly	B 23	B 0
46 828 00	Sicherungsknebel Funktionsschalter	Spacer function switch	B 31	A 1
46 852 00	Cassettenfach	Cassette case	C 2	A 5
46 853 00	Cassettenfachdeckel A	Cassette window A	C 3	B 1
46 854 00	Cassettenfachdeckel B	Cassette window B	C 4	B 1
46 855 00	CR-Taste schmal	Cass. key small	C 5	A 2
46 856 00	CR-Taste breit	Cass. key large	C 6	A 2
46 857 00	Taste Zählwerk	Counter knob	C 7	A 1
46 858 00	Zählwerkriemen	Counter belt	C 8	A 2
46 859 00	Zählwerk	Tape counter	C 9	B 4
40 790 00	Dämpfrad	Damper gear	C 10	A 2
40 791 00	Dämpfradhalter	Damper holder	C 11	A 2
46 860 00	Feder Cassettenfach	Cass. open spring	C 13	A 1
48 000 00	Feder AW-Schalter	Cass. rec. spring	C 14	A 2
46 862 00	Zierschraube	Screw bolt	D 17	A 1
46 843 00	Karton Queens 160/200	Carton Queens 160/200		C 3
46 844 00	Styropor-Verpackung rechts	Poly foam right		C 0
46 845 00	Styropor-Verpackung links	Poly foam left		C 0
42 835 00	Queens 200 LS links	Queens 200 LS left		
42 836 00	Queens 200 LS rechts	Queens 200 LS right		
46 827 00	Gehäusefuß LS-Box	Foot speakerbox		A 9

Explosionsdarstellung Gehäuse Queens 200

Exploded view housing Queens 200

Explo-Index: A–D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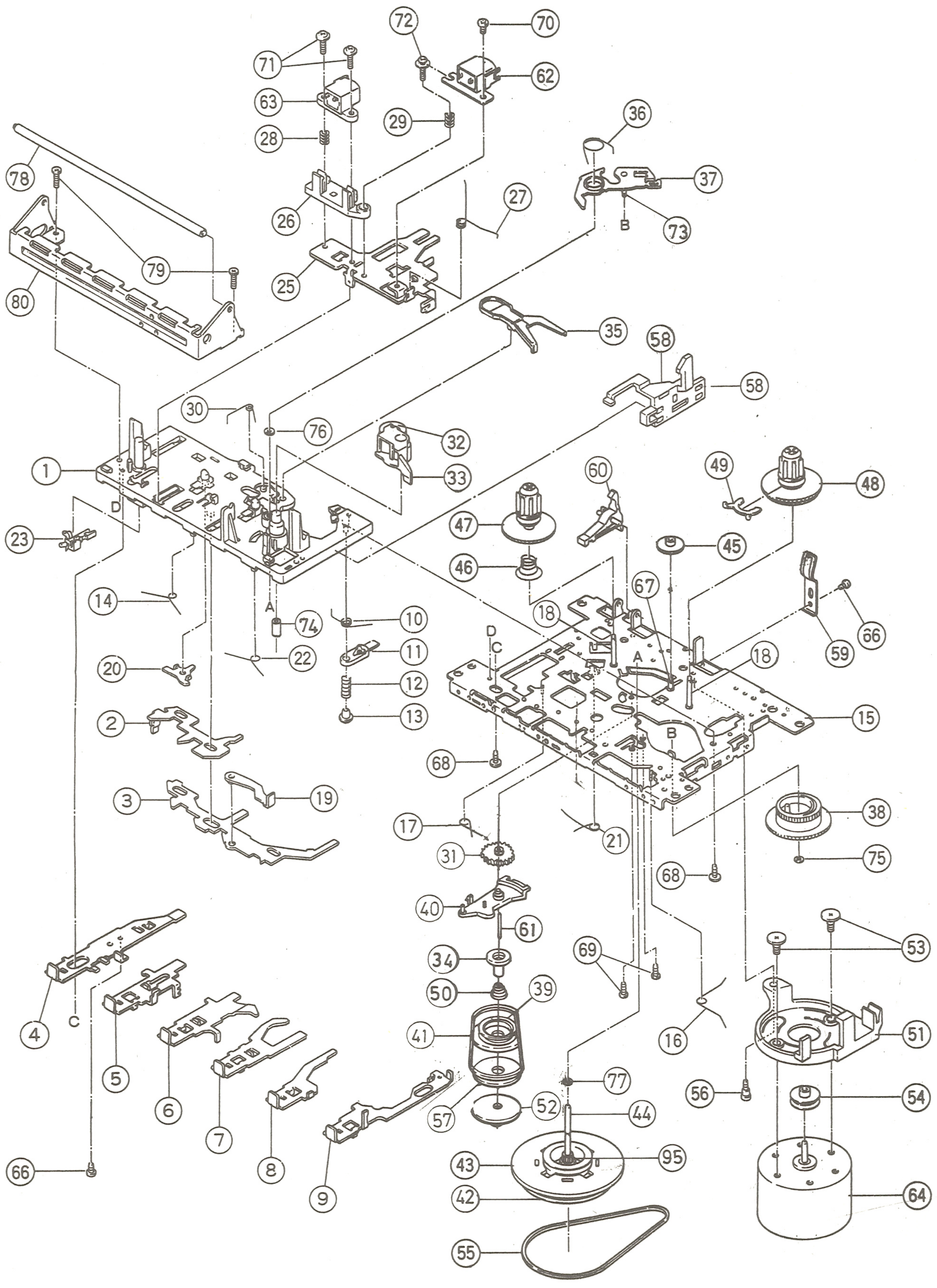
Explosionsdarstellung Cassettenmechanik A/W Queens 200
Exploded view cassette mechanism R/P Queens 200
Explo-Index: CM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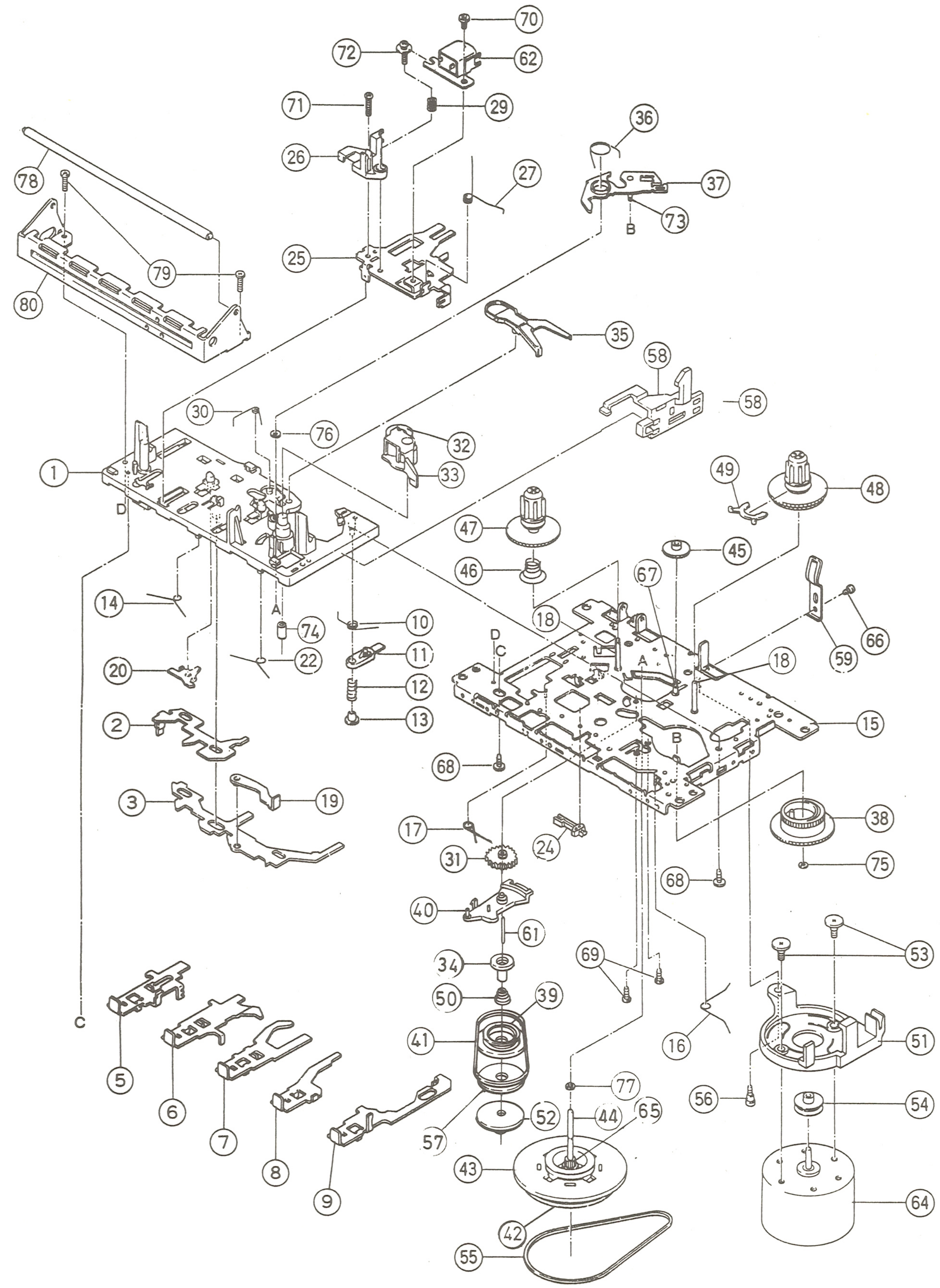
Explosionsdarstellung Cassettenmechanik Wiedergabe Queens 200
Exploded view cassette mechanism playback Queens 200
Explo-Index: CM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Ersatzteilliste Cassettenmechanik Queens 200

Spare parts list cassette mechanism Queens 200

Bestell-Nr./ Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price key
46 863 00	Feder Pauserasthebel	Spring pause lever	CM 10	A 0
46 417 00	Pauserasthebel	Pause lever	CM 11	A 0
44 130 00	Druckfeder Pauserasthebel	Spring pause lever	CM 12	A 0
44 131 00	Sicherungsstöpsel Pause	Pause stopper	CM 13	A 0
32 428 00	Feder Tastenhebel (Vor-, Rücklauf)	Button lever spring (FF, REW.)	CM 14	A 3
46 864 00	Feder Aufnahmetaste	Spring rec. button	CM 21	A 0
32 423 00	Feder Tastenhebel (Stop, Pause)	Button lever spring (Pause, Stop)	CM 22	A 3
44 132 00	Mikroschalter MSW L 541 T	Leaf switch MSW L 541 T	CM 23	A 4
44 133 00	Mikroschalter MSW-17820 MVDO	Leaf switch MSW-17820 MVDO	CM 24	A 7
45 760 00	Feder Kopfträgerplatte	Spring head panel	CM 27	A 1
32 432 00	Feder Löschkopf	Erase head spring	CM 28	A 3
32 435 00	Feder A/W-Kopf	Spring R/P head	CM 29	A 3
32 436 00	Bandandruckrolle kpl.	Pinch roller assembly	CM 32	B 6
44 135 00	Tasthebel Endabschaltung	Sensing lever stop	CM 35	A 1
44 136 00	Kurvenzahnrad	Cam gear	CM 38	A 2
44 137 00	Rutschkupplung kpl.	RF clutch assembly	CM 39	A 7
44 138 00	Riemen Rutschkupplung	Belt RF clutch	CM 41	A 4
46 865 00	Schwungmasse AW- u. Wiederg.-Laufwerk	Fly-wheel R/P and Play	CM 43	B 7
44 140 00	Zahnrad Vorlauf	FF gear	CM 45	A 1
44 319 00	Feder Wickelteller links	Back tension spring	CM 46	A 0
44 141 00	Wickelteller links	Supply reel	CM 47	A 3
44 142 00	Wickelteller rechts kpl.	Take-up reel assembly	CM 48	A 4
46 436 00	Spange Wickelteller	Sensor	CM 49	A 1
32 876 00	Pulley-Motor	Pulley motor	CM 54	A 5
44 143 00	Antriebsriemen	Main belt	CM 55	A 2
46 418 00	Gleithebel Eject	Eject slide lever	CM 58	A 3
32 459 00	Cassettenandruckfeder	Pack spring	CM 59	A 5
32 451 00	Aufnahmesperrhebel	Record safety lever	CM 60	A 5
34 056 00	A/W-Kopf	R/P head	CM 62	C 3
34 057 00	Wiedergabe-Kopf	Play head	CM 62	B 9
24 513 00	Löschkopf	Erase head	CM 63	B 0
48 001 00	Antriebsmotor SHW 2L00	Drive motor SHW 2L00	CM 64	C 3

Bitte bei Ersatzteilbestellung die genaue Bezeichnung und **Ident-Nr. (siehe Typenschild)** des Gerätes sowie Bestell-Nummer und Positions-Nummer des Ersatzteils angeben.

For ordering of spare parts please state exact description and **ident no. of unit (see silver rating label on the backside of unit)** as well as part no. and position no. of required spare parts.

Benutzen Sie:

Telex: 531516

oder

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oder

Telefax: 08245/51326

Technische Änderungen vorbehalten.
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